New Spatial Data Infrastructure Strategy for the Federation of Bosnia and Herzegovina based on the IGIF

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Geospatial World Forum 2023
Land & Property
Outline

- Intro
- SDI development
- SDI Strategy 2023-2027
  - Baseline assessment
  - Strategic Document
  - Action plan
- Summary
### Geographic Location

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Area</th>
<th>Land Area</th>
<th>Water Area</th>
<th>Land Boundaries</th>
<th>Irrigated Land</th>
<th>Border Countries</th>
<th>Coastline</th>
<th>Geographical Coordinates</th>
<th>Terrain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19,767 Square Miles</td>
<td>19,763 Square Miles</td>
<td>4 Square Miles</td>
<td>956 Miles</td>
<td>12 Square Miles</td>
<td>Croatia 932 km, Serbia, Montenegro 527 km</td>
<td>12 Miles</td>
<td>44.00 N, 18.00 E</td>
<td>Mountains and valleys</td>
</tr>
</tbody>
</table>
The organization of geodetic works in FBiH is decentralized.

High-level decision-making processes start at FGA, and are deployed throughout the Federation.

The FGA is under the authority of the FBiH Government/Prime minister.

Staff of approx. 40 personnel.

Cantonal Geodetic Administration and 79 cadastral offices within the cantonal governments and local self-government units.

Dual land administration system FGA and LSGU – cadastre.

FMoJ and LRO – land registry (with FGA as strong supporting influence).
Spatial Data Infrastructure

- New initiative in FB&H (only few years of activities)
- Law adopted in 2021
- We are working on the adoption of by-laws
- FGA is a Coordination Body for SDI
- SDI Council and Working Groups
- SDI Geoportal
  - Metadata platform
  - Viewer
  - Data source and Data provider registry
- Working with Institutions on all levels
  - Support
  - Building capacity
- Data digitization, harmonisation, establishing a Central Access Point for all spatial data
- Support projects from Sweden (CILAP & IMPULS), Netherlands (Spatial II), World Bank
- Regional and International Cooperation
- New SDI Strategy based on the IGIF (2023-2027)
SDI Strategy

Integrated Geospatial Information Framework

Anchored by nine Strategic Pathways, the Integrated Geospatial Information Framework is a mechanism for articulating and demonstrating national leadership in geospatial information, and the capacity to take positive steps.

IGIF World Bank Methodology

Step 1: Baseline Assessment
- Information Policies and Practices

Step 2: Impact Assessment and Action Plan
- IGIF Alignment to Policy Drivers
- IGIF Socio-economic Assessment
- IGIF Action Plan
- Government Policies
- Development Aid Projects
- Geospatial Strategy

Step 3: Investment and Implementation
- Investment Projects
- Key Performance Indicators

UNGGIM / WB Integrated Geospatial Information Framework (IGIF)
01
Baseline Assessment

02
Strategic document (2023-2027)

03
Action plan
Methodology

- All relevant Legal and other documents
- Regulation about developing a Strategic Documents
- Strategic documents of the Federation of B&H
- Law on SDI
- SDI Council Reports and Plans
- Projects
- Online sources
- Working groups
- Public and Institutional Cooperation
- ....

1. Collection, study and analysis of existing sources (Regulations, Reports ...) and online sources.

2. Conducting a survey for SDI subjects and Academic institutions

Baseline Assessment
IGIF DT

Consultation and Interviews between Working group and Consultants

Public Consultations

Situation Analysis document with a Baseline Assessment
Survey Reports

- Survey for Government Institutions, Public and Private Companies – 38 questions
- Survey for Academic Sector – 15 questions
- More than 55% completed the survey

IN WHAT FORM IS SPATIAL DATA USED IN YOUR ORGANIZATION?

- Mostly digital: 27%
- In digital and analog: 61%
- Mostly analog: 27%
- I don't know: 10%

IS THERE A PRACTICE OF DOCUMENTING METADATA IN YOUR ORGANIZATION?

- Yes: 27%
- No: 51%
- I don't know: 22%
## Baseline Assessment Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Current state</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance and Institutions</td>
<td>78</td>
</tr>
<tr>
<td>Policy and Legal</td>
<td>30</td>
</tr>
<tr>
<td>Financial</td>
<td>39</td>
</tr>
<tr>
<td>Data</td>
<td>54</td>
</tr>
<tr>
<td>Innovations</td>
<td>30</td>
</tr>
<tr>
<td>Standards</td>
<td>34</td>
</tr>
<tr>
<td>Partnerships</td>
<td>50</td>
</tr>
<tr>
<td>Capacity and education</td>
<td>57</td>
</tr>
<tr>
<td>Communication and Engagement</td>
<td>63</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
</tr>
<tr>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td><strong>Strengths</strong></td>
</tr>
<tr>
<td></td>
<td>• Existing institutional framework</td>
</tr>
<tr>
<td></td>
<td>• Law on SDI</td>
</tr>
<tr>
<td></td>
<td>• Communication and engagement</td>
</tr>
<tr>
<td></td>
<td>• Coordination body (FGA)</td>
</tr>
<tr>
<td><strong>External</strong></td>
<td><strong>Opportunities</strong></td>
</tr>
<tr>
<td></td>
<td>• Capacity building</td>
</tr>
<tr>
<td></td>
<td>• Harmonization of data</td>
</tr>
<tr>
<td></td>
<td>• Better involvement of SDI subjects and mutual coordination</td>
</tr>
<tr>
<td></td>
<td>• Better cooperation with the academic community</td>
</tr>
<tr>
<td></td>
<td>• New technologies</td>
</tr>
</tbody>
</table>
STRATEGIC DOCUMENT

02

Situation Analysis, Baseline Assessment (DT), SWOT – Base documentation for Strategic Document

Goals, Priorities & Measures
Vision

- The spatial data infrastructure of the Federation of Bosnia and Herzegovina will enable everyone to easily, quickly and efficiently find and use harmonized spatial data and create a geo-enabled society.

Mission

- The establishment of an effective Spatial Data Infrastructure of the Federation of Bosnia and Herzegovina that provides access, exchange and use of spatial data and services to all SDI bodies, the public and private sector, the academic community and citizens.
<table>
<thead>
<tr>
<th>Strategic Goal</th>
<th>Indicator</th>
<th>Initial value</th>
<th>Target value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective use and exchange of harmonized spatial data and services for effective measurement, monitoring and achievement of sustainable social, economic and environmental development</td>
<td>Total IGIF assessment by strategic pathways</td>
<td>49</td>
<td>70</td>
</tr>
<tr>
<td>No</td>
<td>Priority</td>
<td>Indicator</td>
<td>Initial</td>
</tr>
<tr>
<td>----</td>
<td>----------</td>
<td>-----------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| 1  | Improve the functionality of SDI through effective management, cooperation and work of SDI bodies and entities | 1. Government and Institutions  
2. Policy and Legal  
3. Financial  
5. Innovations  
7. Partnerships | 45 | 67 |
| 2  | Harmonize SDI with the European acquis and standardization framework | 1. Government and Institutions  
2. Policy and Legal  
5. Innovations  
7. Partnerships | 49 | 69 |
| 3  | Simple, fast and efficient access and use of harmonized spatial data based on relevant modern technologies | 4. Data  
5. Innovations | 42 | 65 |
| 4  | Sustainable financial framework for the development and functioning of SDI FBiH Priority | 3. Financial  
7. Partnerships | 45 | 65 |
| 5  | Build capacities | 7. Partnerships  
8. Capacity and education  
9. Communication and Engagement | 57 | 77 |
Measures

- Each priority and accompanying measures are presented in a table.
- The tables contain links to strategic goals, measures and indicators for monitoring measures with starting and target values.
- Priority monitoring indicators are related to IGIF indicators.
- Each priority is linked to one or more strategic paths of IGIF, which includes accompanying indicators.
- The initial state of the indicators by strategic paths and in total is given in the Baseline Assessment, and the target values are proposed to be determined in the first years of implementation.

<table>
<thead>
<tr>
<th>Priority</th>
<th>1.4 1.3 Sustainable financial framework for the development and functioning of SDI FBiH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relation to IGIF Strategic Pathways</td>
<td>3. Financial 7. Partnerships</td>
</tr>
<tr>
<td>Measure name</td>
<td>1.4.1 Adoption and application of the SDI business model</td>
</tr>
<tr>
<td>Description of the measure with an outline of activity areas of activity</td>
<td>This measure includes the adoption of a business model and a clear definition of the pricing policy for spatial data and services. The business model must be compliant with the licensing framework. The measure will identify financial partnerships and investment needs, i.e., means for financing SDI, as well as identifying milestones for the realization of benefits that will achieve and maintain momentum. The adoption of the business model will achieve an understanding of the financial plans needed to implement and maintain the SDI, as well as a long-term investment program that enables the Government to respond to the growing social, environmental and economic demands for spatial data.</td>
</tr>
<tr>
<td>Strategic Projects</td>
<td>• SDI Support Project  • Digital Enhancement of Land Management for the European Future of Bosnia and Herzegovina</td>
</tr>
<tr>
<td>Monitoring indicators of the results of the measure</td>
<td>Indicators</td>
</tr>
<tr>
<td>Adopted SDI Business Model</td>
<td>NO</td>
</tr>
<tr>
<td>The development effect and contribution of the measure to the achievement of priorities</td>
<td>This measure will show the benefits of SDI in the sectors that use spatial data and services the most, but also as support for the overall economic and sustainable development of FBiH.</td>
</tr>
<tr>
<td>Indicative financial construction with sources of financing</td>
<td>Amount: 30 000 EUR  Source: 50% Budget, 50% Projects</td>
</tr>
<tr>
<td>Implementation period</td>
<td>2023.-2025.</td>
</tr>
<tr>
<td>Institution responsible for coordination</td>
<td>Coordinating body of SDI</td>
</tr>
<tr>
<td>The bearers of the measure</td>
<td>Council, Working groups, Coordinating body</td>
</tr>
<tr>
<td>Target groups</td>
<td>SDI Subjects</td>
</tr>
</tbody>
</table>
Strategic Projects

- The realization of the vision, mission and goal of the future development of the FBiH SDI through priorities and measures relies to a large extent on the budget of the FGA, the budgets of the SDI subjects, but also on the support of strategic projects.
- FGA plans to implement the following projects in the future period:
  - SDI Support Project (World Bank)
  - DELEF Project (Sweden – SIDA & Lantmateriet)
- Support for Institutions
- Hardware, software, building capacity
- Develop a new architecture and Geoportal
- Data access, data quality, digitizing, ...
- Future strategic projects for the support of SDI FBiH should go in the direction of the priorities of the European Commission first of all:
  - Support for the European Green Plan
  - Europe ready for the digital age
  - Economy in the interest of citizens
# Financial Frame

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total from Strategic Document</td>
<td>3,115,090,00 EUR</td>
<td>100%</td>
</tr>
<tr>
<td>Budget Funds</td>
<td>789,003,00 EUR</td>
<td>25.33 %</td>
</tr>
<tr>
<td>Credit Funds</td>
<td>2,024,808,00 EUR</td>
<td>65.00 %</td>
</tr>
<tr>
<td>EU Funds</td>
<td>- EUR</td>
<td>- %</td>
</tr>
<tr>
<td>Donations</td>
<td>301,279,00 EUR</td>
<td>9.67 %</td>
</tr>
</tbody>
</table>
03 Ongoing activity
Summary & What’s next?

- Baseline Assessment – Done
- Strategic Document – Done
- Financial frame, Risk Analysis, etc. – Done
- Action plan – In progress

- Referral to the procedure for official acceptance of Strategy
- Monitoring and evaluation
  - Indicators for goal, priorities and measures
  - Monitor of realization by IGIF strategic pathways
  - Annual base monitoring
  - On-going evaluation

- Reporting

- **IMPLEMENTATION (2023-2027)**

- Where are we in 2027?