UNIUNEA EUROPEANĂ
Fondul European de Dezvoltare Regională

The Association of Regional Development Agencies – ROREG

SUD MUNTENIA
Agenția pentru Dezvoltare Regională

Instrumente Structurale 2014-2020

ANALYSIS ON BLUE-GREEN INFRASTRUCTURE IN SOUTH MUNTENIA REGION

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September 28th, 2021

Project founded through POAT 2014 – 2020

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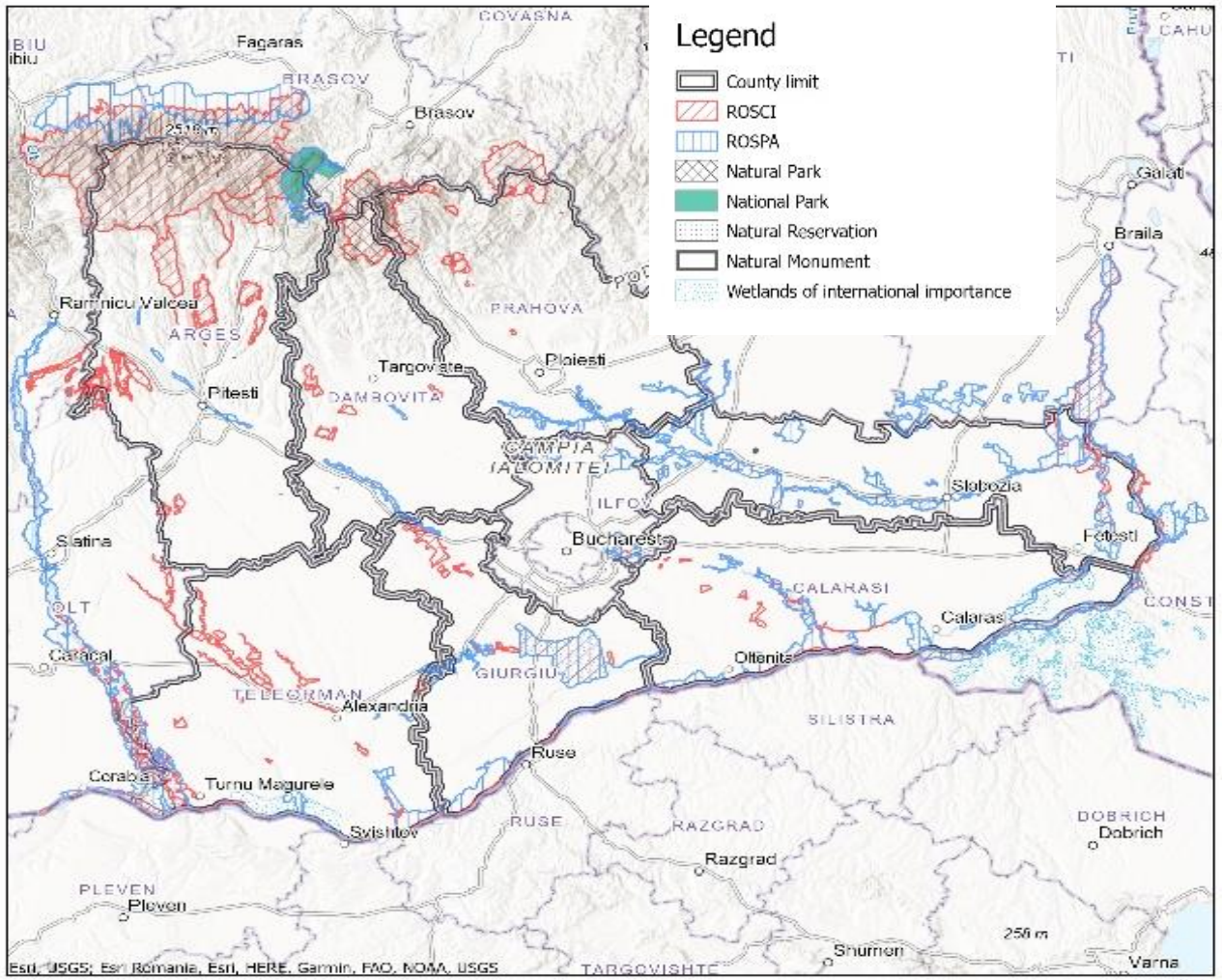
South Muntenia Region

- Rich hydrographic network with Danube being dominant (five smaller rivers), natural and anthropic lakes with complex uses;
- High number of protected areas, including Natura2000;

➢ 3 National Parks

➢ 32 SPA - Council Directive 2009/147/EC on the conservation of wild birds

➢ 41 SCI - Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora



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Environmental challenges in South Muntenia Region

Category	Parameter
The main environmental aspects	▪ Water quality, ▪ Soil pollution ▪ Air pollution, ▪ Lack of green space
The main climatological hazards	▪ Flooding (river flooding and stormwater flooding) and Drought.
The most important elements that can improve the environment	▪ Stormwater collection ▪ Improvement of Air Quality ▪ Increased recreational possibilities ▪ Expanding the green space area close to residential areas

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Strategic opportunity:

Specific Objective b(vii) - Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution and associated funds

- Need for a broader strategic view of environmental challenges in order to guide sound investments
- Change of approach and mindset; nature – based solutions
- Key stakeholders; Local authorities

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BLUE GREEN INFRASTRUCTURE

BGI are engineered solutions that mimic nature, connecting urban hydrological functions (blue) and permeable recreational spaces (green), with wider urban design and planning benefits. BGI can address typical drainage issues such as water quality and extreme flooding, while generating social and environmental value for local areas, that also addresses the challenges of urban growth and climate change.

Important components of BGI to consider are:

- a strategically planned (interconnected) network;
- biodiversity-rich natural and semi-natural areas with other environmental features, including water bodies and green & open space; and
- designed and managed to deliver a wide range of ecosystem services.

Regional Analysis on Blue – Green Infrastructure in South Muntenia

- Funded by the Technical Assistance Operational Program (POAT) 2014-2020
- Carried out by EBRD
- Implementation - 6 months (July - December 2021)
- Target group: Local Public Authorities
- Output: strategy for BGI

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- **GOAL -** The Regional analysis undertakes a systematic ecosystemic approach to tackle the environmental challenges with a focus on functional urban areas in South - Muntenia region;
- Given the geomorphology, the associated environmental challenges and the socio-economic situation of the region, the analysis includes both green and blue infrastructure;
- The Analysis will identify the main green and blue infrastructure projects, which could be co-financed from EU funds, especially under the SM Regional Operational Programme 2021-2027, *Specific Objective b(vii) - Enhancing protection and preservation of nature, biodiversity and green infrastructure, including in urban areas, and reducing all forms of pollution.*

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MAIN APPROACH

01

Final Baseline Assessment and Gap Analysis

- Compilation and analysis of all survey responses
- Thematic Maps to support upcoming tasks
- Tentative ToC for regional analysis

02

Stakeholder Workshop (9/9)

- Discussion of high-level assessments, with focus on the regional scale
- Validation and Agreement of Regional Environmental Challenges through participatory discussions and expert assessments

03

Outline of types of interventions

- GIS overlay analysis of projects proposed by stakeholders with thematic maps
- High-level regional assessment with focus on BGI at a regional scale, through a simple multi-criteria assessment (MCA)

04

Stakeholder Workshop (end-Oct)

- Discussion of potential project typologies: experts assessment, GIS overlays and feedback from stakeholders
- Validation and Agreement of Regional Project Typologies

05

Regional Analysis

- Pipeline of regional project typologies based on output from latest workshop, expert assessments and GIS overlay analysis
- Refined MCA, incl. feedback from stakeholders, with focus on resource implications
- Recommendations for next steps

STAKEHOLDER ENGAGEMENT

PROJECT APPROACH:
STAKEHOLDER ENGAGEMENT
Identifying environmental challenges in the region

Inform further decisions and pipeline for regional projects

STAKEHOLDERS	CATEGORY	AREA OF INTEREST / ROLE
County councils and the cities, representatives of cities and communes	Primary	i. Members of the working group; Ii. Provide inputs to identifying environmental challenges Iii. Beneficiaries of future investments
Relevant governmental agencies (ex. the Agency for Environmental Protection or General Inspectorate for Emergency Situations under the Ministry of Interiors)	Secondary	I. Provide inputs to identifying Environmental challenges; II. Other types of support
Relevant NGOs (ex. representing environmental protection, or stakeholders such as youth, women or other categories of populations)	Other	I. Provide inputs to identifying Environmental challenges; II. Users of the future BGI infrastructure

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Implemented activities so far

- *Workshops and site visits*

Date	Activity
August 25th	Stakeholders Meeting
September 9th	Stakeholders Workshop
September 20th	Site visit in Calarasi and Ialomita counties
September 21st	Site visit in Teleorman and Giurgiu counties
September 22nd	Site visit in Dambovita, Prahova and Arges counties

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POTENTIAL BGI TYPOLOGIES and APPLICATION IN SOUTH-MUNTENIA

Urban Canal - Urban canals are larger infrastructure projects that typically involve daylighting of a stream or river within a dense urban area.

Pitesti

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POTENTIAL BGI TYPOLOGIES and APPLICATION IN SOUTH MUNTENIA

Wetlands - constructed stormwater wetlands are ponded areas, densely vegetated with water-loving plants that mimic the ith detention, fine filtration and biological absorption, to remove contamtreatment processes of natural wetlands winants from stormwater runoff

COMANA- (semi-) natural park

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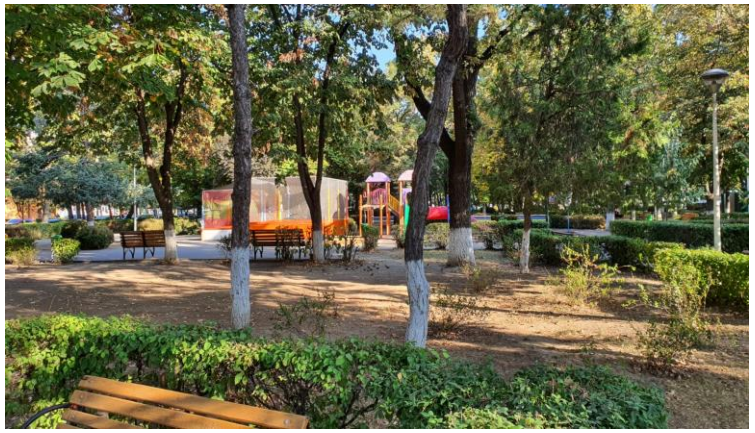
POTENTIAL BGI TYPOLOGIES –ADAPTATION and APPLICATION TO SOUTH-MUNTENIA

Bioretention Basin - Bioretention basins such as rain gardens, planter boxes and swales can involve daylighting historic streams, formalizing existing streams, or **creating new streams as quality improvement and conveyance connections between other cloudburst elements.**

IALOMIȚA RIVER



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POTENTIAL BGI TYPOLOGIES –ADAPTATION and APPLICATION TO SOUTH MUNTENIA

Floodable Parks - Floodable Parks and recreation spaces present the greatest opportunity for large retention spaces within urban areas.

CĂLĂRAȘI CENTRAL PARK

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POTENTIAL BGI TYPOLOGIES

Retention Boulevard - retention boulevards are similar in scale to cloudburst roads, but incorporate large green, depressed medians that can detain and retain stormwater while allowing regular traffic use of the street.

Cloudburst Pipes - A cloudburst pipe handles rainwater in the same way as cloudburst roads.

Cloudburst Roads - Cloudburst roads are used to channel and direct cloudburst water.

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POTENTIAL BGI TYPOLOGIES

Wet Plazas - wet plazas or floodable public spaces are another great opportunity for large retention capacity within denser urban environments.

Green Streets - Green Streets are proposed as upstream connections to all cloudburst roads or retention areas.

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Thank you!

https://www.adrmuntenia.ro/adr-sud-muntenia-a-finalizat-vizitele-in-teren-privind-propunerile-de-proiecte-r/article/1482

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