

26th Conference of the Working Group Sustainability/ Soil Protection
of the Working Community of the Danube Regions

Recent Activities of Priority Area 06

EU Strategy for the Danube Region

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Bavarian State Ministry of the Environment and
Consumer Protection

Priority Area 06 Coordinator
EU Strategy for the Danube Region

Tulln, 10.04.2019



This project is co-financed by the European Union



PA 06 Studies

Ecological Connectivity

Objectives of the Study:

- **Inventory of Ecological Connectivity** in the Danube region
- Identifying **needs for action** and concrete proposals for projects to increase the understanding of the role of Ecological Connectivity along the Danube in all habitats (air, water, land).
- Identification of **relevant political and administrative actors** in the regions, including their impact mechanisms develop links for cooperation with neighboring regions and strategies such as the EUSALP and other MRS
- Anchoring concept of **EU Green Infrastructure** (GI) in the Danube Region
- Contribution to the objective of a **Trans-European Green Infrastructure Network** (TEN-G) along the Danube.



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Ecological Connectivity in the Danube Region

Final Report



Client:

Bayerisches Staatsministerium für Umwelt und Verbraucherschutz,
(Bavarian State Ministry of the Environment and Consumer Protection,
PA 6 Leader of EUSDR)
September 2018



Content

1. Introduction
2. Ecological Connectivity in the DRB: Status Quo
3. Existing ecological corridors and connectivity elements in the DRB
3. Existing Gaps and challenges
4. Project outline for enhancing ecological connectivity
5. Concluding recommendations
6. References

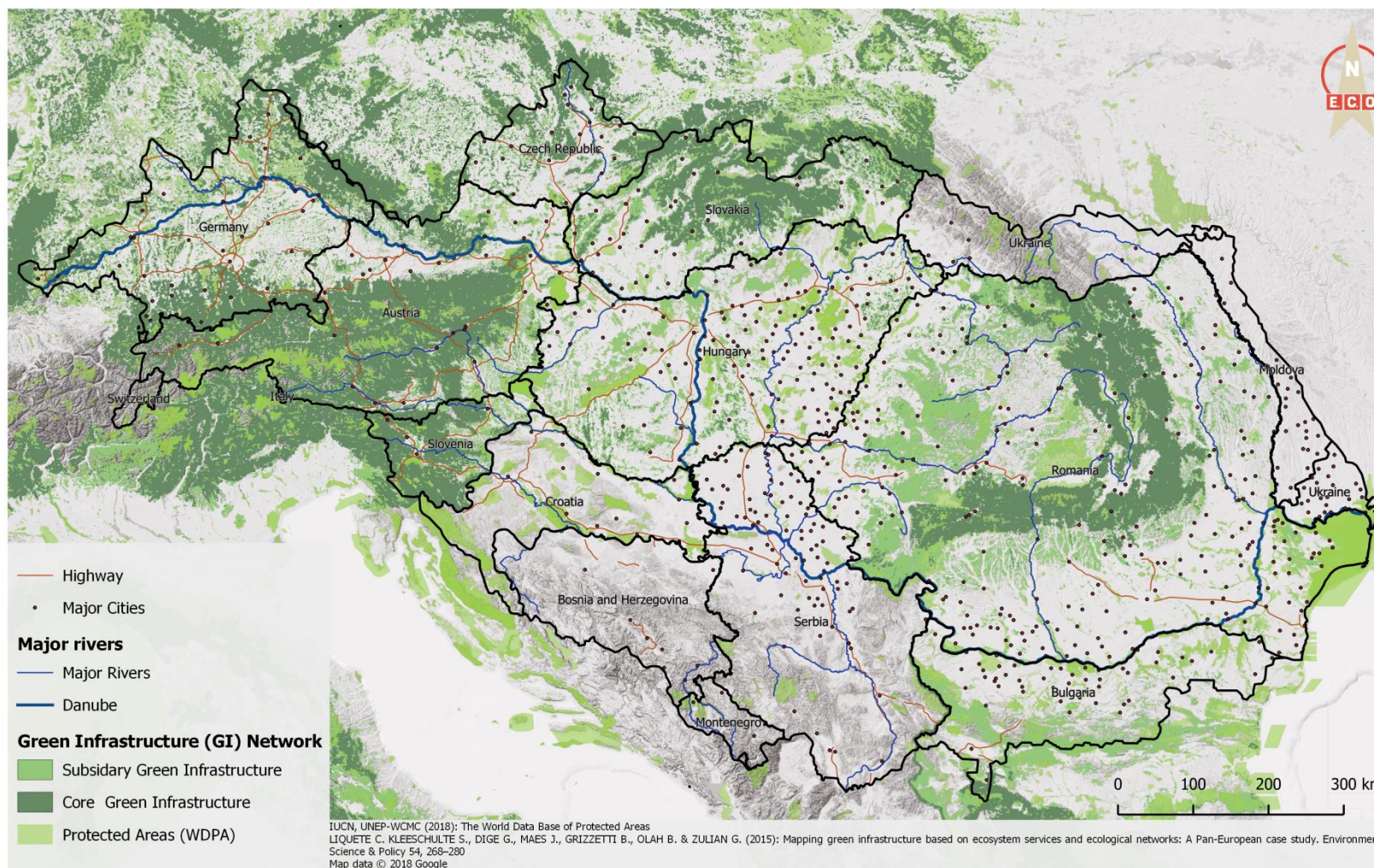
Available for download at [www.danube-nature.eu \(/files\)](http://www.danube-nature.eu (/files))



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Ecological Connectivity in the Danube Area

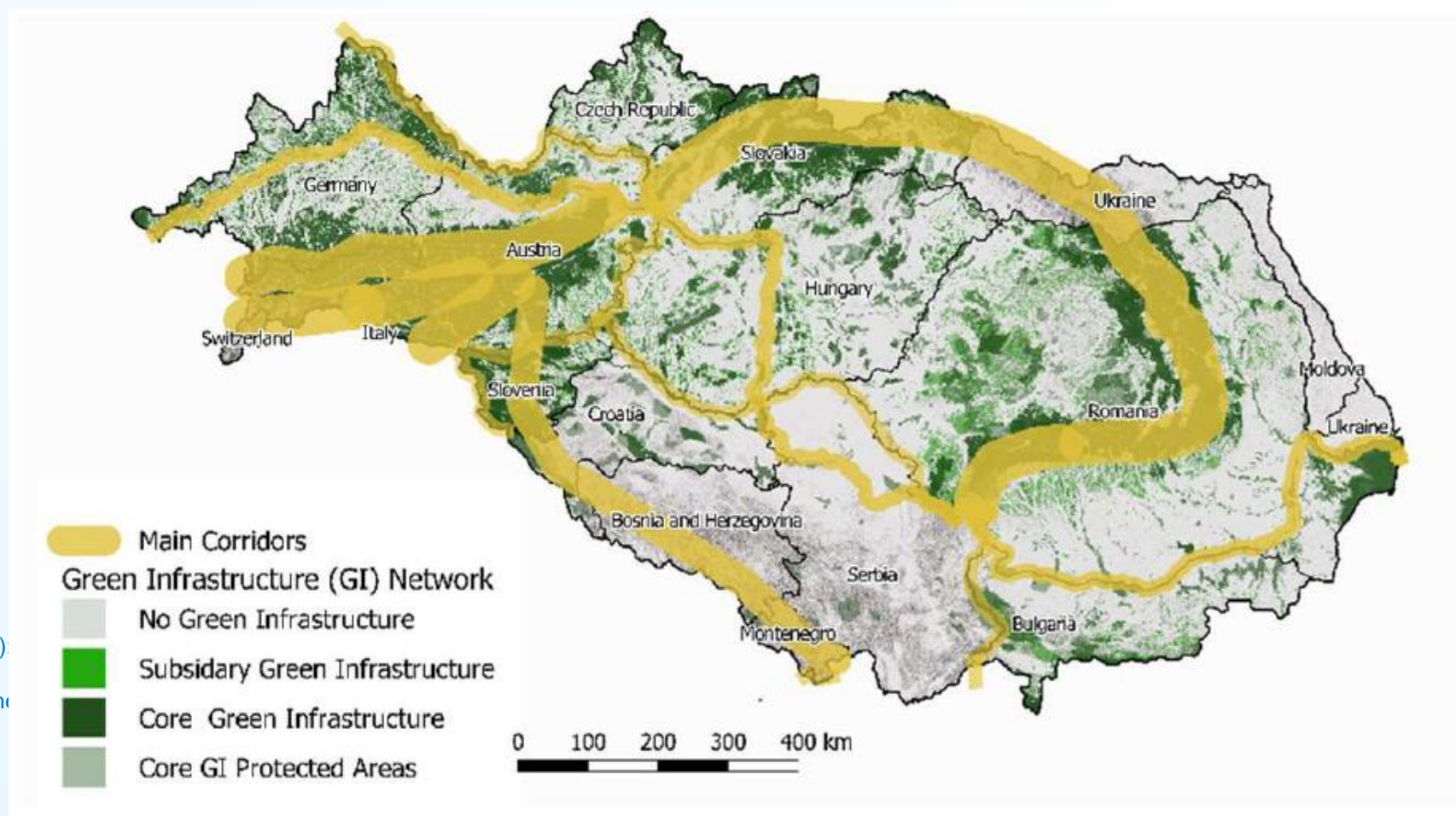


Excerpt from
Huber, M.,
Jungmeier, M.,
Glatz-Jorde, S.,
Höfferle, P.,
Berger, V. (2018):
Ecological
Connectivity in the
Danube Region.
Final Report.



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Main corridors of transnational importance in the DRB



Excerpt from
Huber, M.,
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Final Report.

EXISTING ECOLOGICAL CORRIDORS AND CONNECTIVITY ELEMENTS IN THE DRB

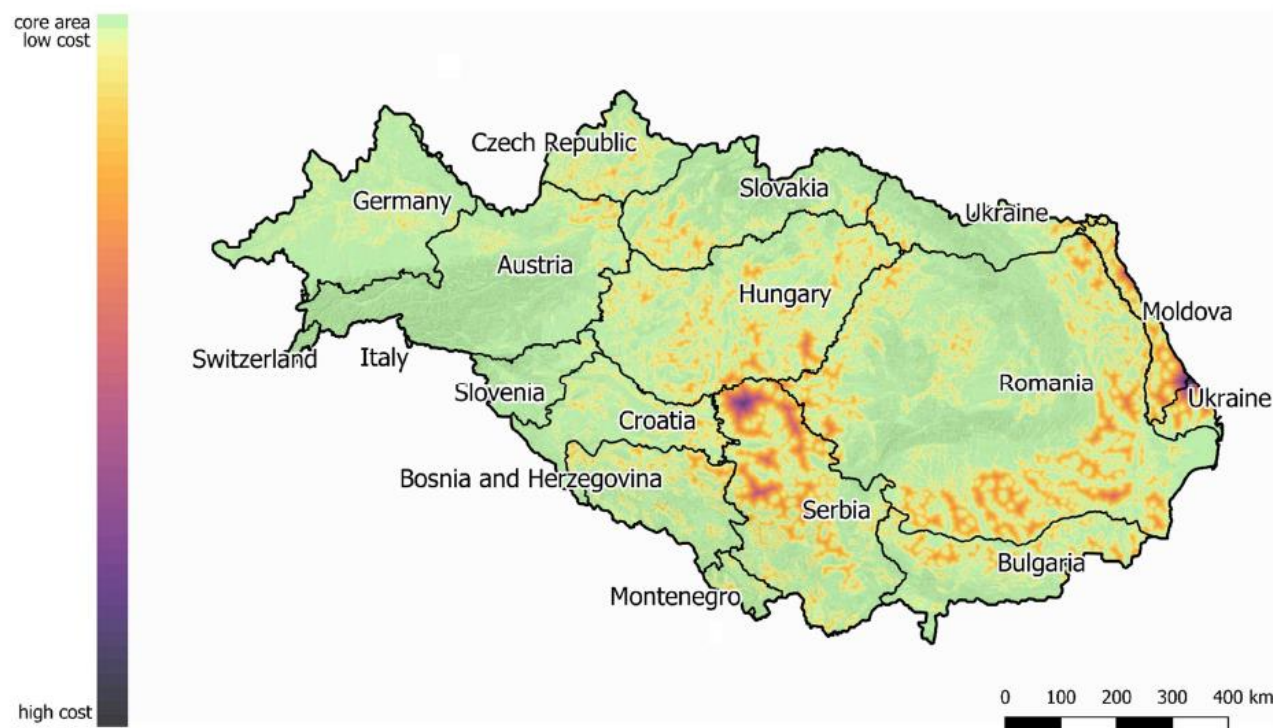


Figure 36: Cost-Distance Analysis of the DRB: Status of Macroregional ecological connectivity
Source: Own analysis carried out with QGIS 2.8.; Basic data: Global Land Cover 2000 (JRC/EC 2003) and UNEP-WCMC (2018)

Excerpt from Huber, M., Jungmeier, M., Glatz-Jorde, S. Höfferle, P., Berger, V. (2018): Ecological Connectivity in the Danube Region. Final Report.



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EXISTING ECOLOGICAL CORRIDORS AND CONNECTIVITY ELEMENTS IN THE DRB

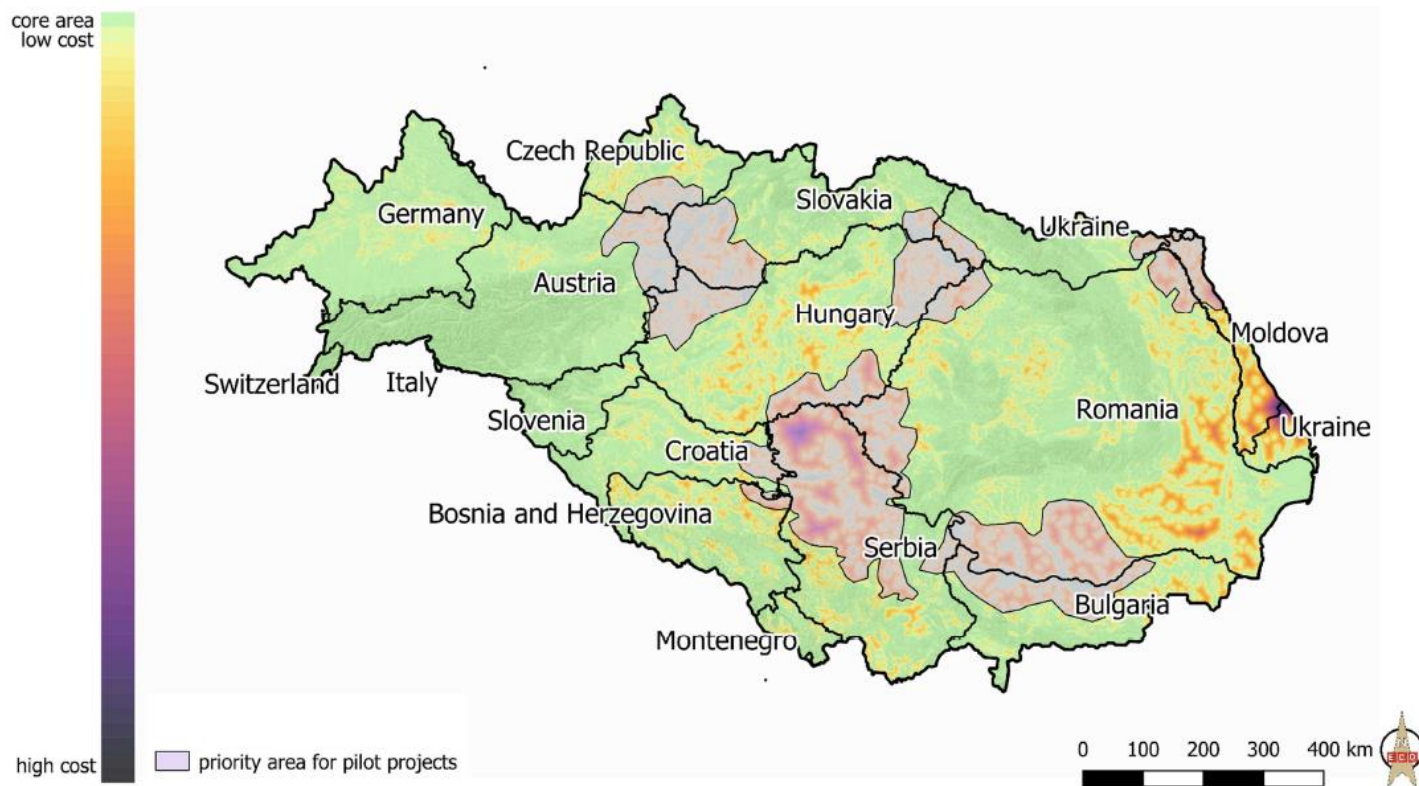


Figure 37: Priority areas proposed for the implementation of pilot projects on ecological connectivity

Excerpt from Huber, M., Jungmeier, M., Glatz-Jorde, S. Höfferle, P., Berger, V. (2018): Ecological Connectivity in the Danube Region. Final Report.



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PA 06 Studies

Ecosystem Services

Objectives of the Study:

- **Inventory of ESS in the EU and the EUSDR States:** Systematics and available data for the evaluation of ecosystem services and their economic and social benefits for humans, differentiated according to suitable sub-ecosystems (e.g: forests, soils, river and floodplains, cultural landscape, etc.)
- **Analyses of ESS evaluation methods** in the countries, starting points for **harmonization** (if necessary).
- **Presentation of the economic and social benefits** (value) of **ESS** in the Danube Region on basis of available data sources and by selecting and applying suitable assessment methods for ESS in the Danube Region
- Identification of "**Green Hot Spots**" in the Danube Region: Regions with significantly high ESS according to the selected measurement method.
- Results of study as a valuable tool for further implementation of the EUSDR for all priority areas as well as for investment and planning decisions

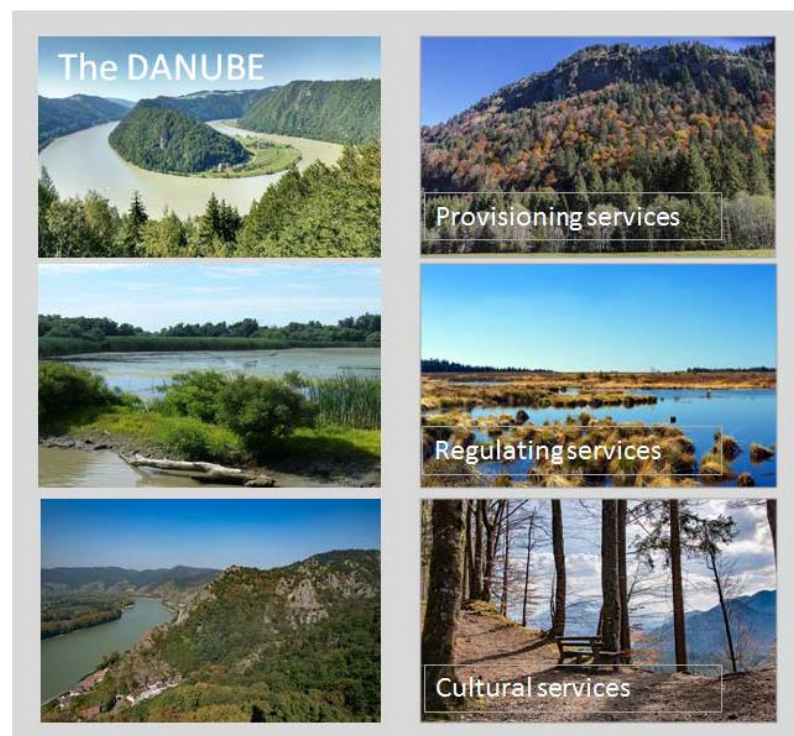


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2018

ECOSYSTEM SERVICES IN THE DANUBE REGION



Authors:

Badura, Marianne; Schmidleitner Anita; Tupikin, Oleksii

blue! advancing european projects GbR - Munich, Germany - www.the-blue.net

Content

1. Introduction and subject of the analysis
2. Definition of ES in a EU wide process
3. Classification and valuation methods of studies in the research area (all 14 Danube Region Countries)
4. Comparative analysis of ES valuation in the research area
5. Description of selected areas in the Danube area with high level of ES („ES hot spots“)
6. Recommendations for methodological integration of ES into investment and planning decisions of the EUSDR
7. References

Available for download at [www.danube-nature.eu \(/files\)](http://www.danube-nature.eu (/files))



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Regional and national Studies on Ecosystem Services

Regional and national studies on Ecosystem Services

Legend

- 1, River Mur in Steiermark (Austria)
- 2, Leiblachtal in Vorarlberg (Austria)
- 3, Rudozem and Banite (Bulgaria)
- 4, Karlovo municipality (Bulgaria)
- 5, Danube Floodplains and islands (Bulgaria)
- 6, Danube and Sava floodplains (Croatia)
- 7, Bodensee (Germany)
- 8, Bornhöved lakes district (Germany)
- 9, Berlin (Germany)
- 10, City forest in Remscheid (Germany)
- 11, Centre of Szeged (Hungary)
- 12, Tisza River (Hungary and Romania)
- 13, Karst Areas (Hungary)
- 14, Tara River (Montenegro)
- 15, Niraj-Tárnava Mică region (Romania)
- 16, Tisza River (Hungary and Romania)
- 17, Muranska Planina National Park (Slovakia)
- 18, Veľká Fatra National Park (Slovakia)
- 19, Škocjan Caves Regional Park (Slovenia)
- 20, Dniproptovsk- L'viv- Nature Park Pivnichne Podillia (Ukraine)
- 21, Kalkalpen National Park (Austria)
- 22, Nature Park Žumberak-Samoborsko gorje (Croatia)
- 23, Bükk National Park (Hungary)
- 24, Apuseni Nature Park (Romania)
- 25, Notranjska Regional Park (Slovenia)
- 26, Bijambare Protected Landscape (Bosnia and Herzegovina)
- 27, National Park Tara (Serbia)
- 28, Maramures Mountains Natural Park (Romania)
- 29, Piatra Craiului Nature Park (Romania)
- 30, Retezat National Park (Romania)
- 31, Vanatori Neamt Natural Park (Romania)
- 32, Römervand Carnuntum- Pongau-Oststeirisches Kernland (Austria)
- 33, Central Balkan area (Bulgaria)
- 34, Economic values of Danube Floodplains
- 35, Valuing the Danube
- 36, Results of a scoping study on ecosystem services in the Danube River Basin
- 37, Czech Republik Pilot National Assessment of ES
- 38, Natura 2000 sites
- 39, Danube

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M 1:4.000.000

0 37,5 75 150 225 300 Kilometer

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swissopo, © OpenStreetMap contributors, and the GIS User Community

Regional Studies on Ecosystem Services in the Danube Region as examined in Study

Regional studies on Ecosystem Services Zoom in Danube region

Legend

- 1, River Mur in Steiermark (Austria)
- 2, Leiblachtal in Vorarlberg (Austria)
- 3, Rudozem and Banite (Bulgaria)
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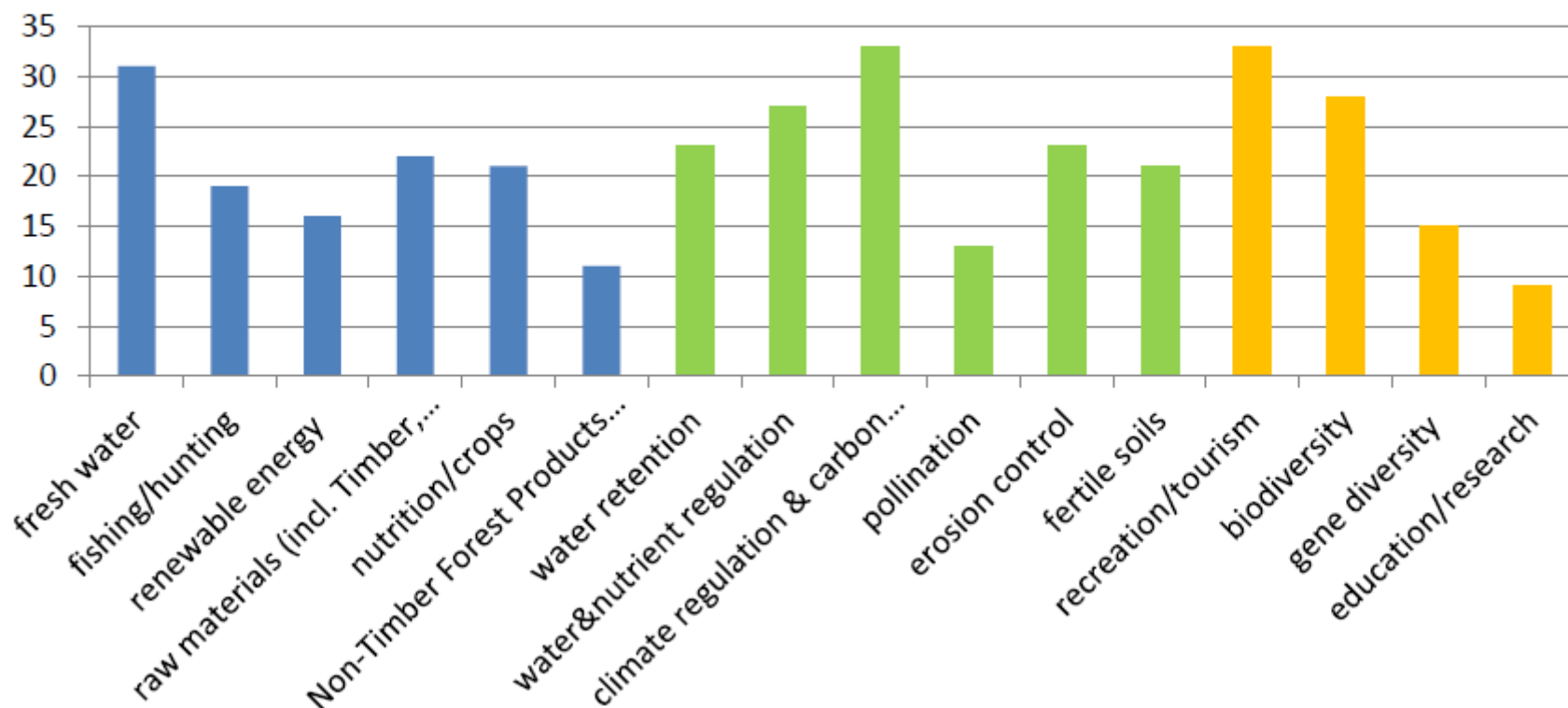


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Kilometer

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, OpenStreetMap contributors, and the GIS User Community

Frequency of ESS addressed within in the 42 studies analysed



	1A	1B	2	3	4	5	6	7	8	9	10	11
	Waterways mobility	Rail- road Air Mobility	Sustaina- ble Energy	Culture & Tourism	Water Quality	Enviro- n- mental Risks	Biodiversity& Landscapes	Knowledge society	Competitive- ness of Enterprises	People & Skills	Institutional Capacity & Cooperation	Security
Type of ESS												
Provisioning services												
fresh water	X		X	X	X		X	X	X	X	X	X
fishing/hunting				X			X					
renewable energy			X					X	X	X	X	X
raw materials (incl. timber, wood)			X					X	X	X		X
nutrition/crops			X	X	X		X		X	X	X	X
Non-Timber Forest Products				X			X		X	X		
Regulating services												
water retention	X	X			X	X	X				X	
water&nutrient regulation					X				X		X	X
climate regulation & carbon sequestration			X	X	X	X	X		X		X	X
pollination			X	X			X			X		
erosion control	X	X			X	X	X			X		X
fertile soils			X	X	X	X	X			X		
Cultural services												
recreation/tourism	X	X		X			X	X	X	X	X	
biodiversity			X	X	X	X	X	X	X	X	X	
gene diversity			X	X	X	X	X	X	X	X		
education/research								X	X	X	X	X

Table 4: Relations between ecosystem services and EUSDR Priority Areas (own illustration)

PA 06 / EUSDR current activities

Revision of the EUSDR Action Plan

- Process started 2018, linked with new EU programming period 2020+
- Steering Group involvement in Nov. 2018
- National consultations ongoing, involvement of civil society
- Open online consultation until 20. May 2019 under www.danube-region.eu (News section)
- Possibility to participate at Public Hearing on 27th June 2019 in Bucharest (EUSDR Annual Forum)



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Bayerisches Staatsministerium für
Umwelt und Verbraucherschutz



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Bavarian State Ministry for the Environment and
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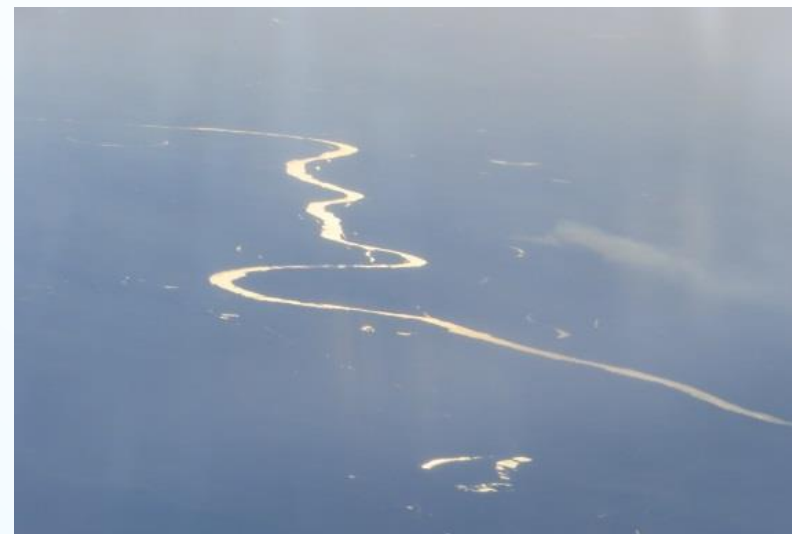
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