



**NWRM**

**Natural Water Retention Measures**

Web-based knowledge  
Community of practice  
NWRM practical guide



European Commission

Pilot Project - Atmospheric Precipitation -  
Protection and efficient use of Fresh Water:  
Integration of Natural Water Retention  
Measures in River basin management

Service contract n°ENV.D.1/SER/2013/0010

**The 2<sup>nd</sup> Danube Region Workshop**

**What do the Case Studies show?**

**23 - 24 June 2014**  
**Bucharest (Romania)**

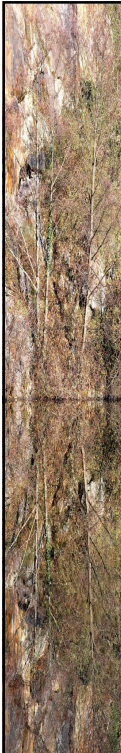
Jovanka Ignjatović  
Regional Environmental Center



Office International de l'Eau




ACTeion



***The “Winner” CSs (i/ii)***

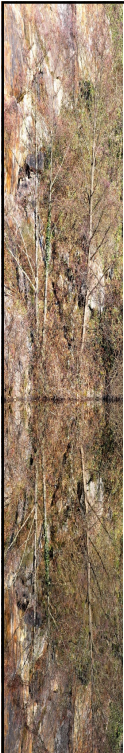
- **Sector: Agriculture**
  - DE: Holter-Hammrich Area - Flood Protection and Nature Conservation
  - SK: Conservation of Senne and Medzibodrozie SPAs in Slovakia
- **Sector: Forestry**
  - AT: Revitalisation Upper Drau
  - HU: Habitat Reconstruction in the forests of the Körös Valley
- **Sector: Urban Areas**
  - AT: Green Roofs of Vienna

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## The “Winner” CSs (i/ii)

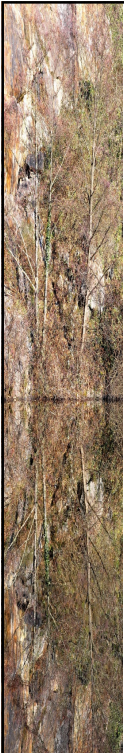
- **Sector: Natural Areas**
  - AT: Revitalisation Upper Drau
  - BG: Wetland Restoration and Pollution Reduction Project
  - CZ: Stream Černý Potok
  - DE: Holter-Hammrich Area - Flood Protection and Nature Conservation
  - HR: Floodplain restoration in the Lonjsko Polje
  - RO: Wetland Restoration Ciobarciu
  - SI: Conservation Mura Banks
  - SK: Conservation of Senne and Medzibodrozie

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## The “Light” CSs (i/iii)


- **Sector: Urban Areas**
  - CZ: Drainage Study Hradec Kralove
- **Sector: Natural Areas**
  - BG: Restoration of Vesselina River
  - BG: Restore and Secure Long-term Preservation of the Atanasovsko Lake Coastal Lagoon
  - CZ: Revitalisation Borova
  - CZ: Pool Biocenter

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## The “Light” CSs (ii/iii)

➤ **Sector: Natural Areas**

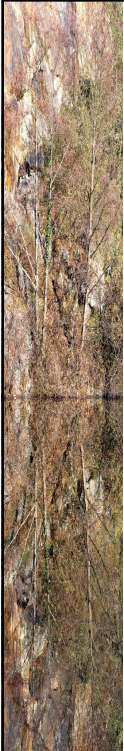
- HR: Constructed wetlands Jakuševac
- HR: Vonarje reservoir Sutlansko Lake
- HU: Water supply and rehabilitation Nagyszeksos-  
to Southern Hungary
- RO: Restoration on Comana wetlands
- RO: Ecological reconstruction Gerai Pond

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## The “Light” CSs (iii/iii)

➤ **Sector: Natural Areas**

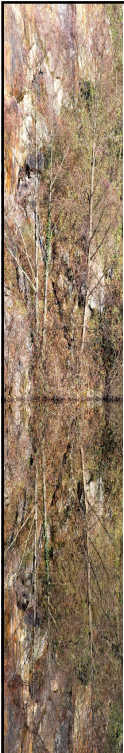
- SI: Constructed Wetland Ormoz
- SI: Action Plan for Re-naturalization of water  
courses in the area of Cerknica
- SK: Revitalisation Slovakia
- SK: Making space for water in the Bodrog River  
Basin

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## Top Measures (i/ii)

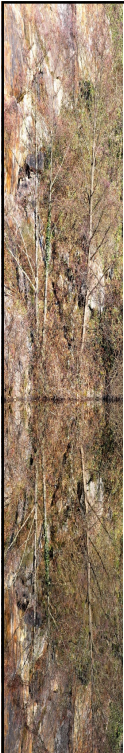
- **Sector: Agriculture**
  - Restoring and maintaining meadows and pastures
  - Field margins and headlands
  - Soil conservation crop practices: intercropping
  - No tillage or Reduced/conservation tillage
  - Green cover
- **Sector: Forestry**
  - *Riparian buffers*
- **Sector: Urban Areas**
  - Channels and Rills

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## Top Measures (ii/ii)

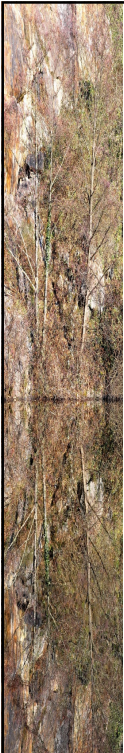
- **Sector: Natural Areas**
  - *Wetland restoration and creation*
  - *Floodplains*
  - *Re-Meandering*
  - *Revitalization of flowing waters*
  - *Riverbed restauration*
  - *Natural bank stabilization*
  - *Restoration of lakes*
  - *Leveling of dams/ longitudinal barriers*

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## **Causes & Purpose**

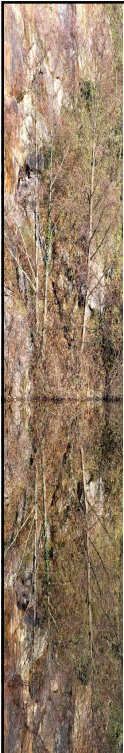
- Physical alteration for agriculture
- River training
- Physical alteration for flood protection
- Point & linear pollution control
  - ❖ Water quality improvements
  - ❖ Restoring hydraulic connection
  - ❖ WFD Ecological Status
  - ❖ Flood control & Peak flow rate reduction
  - ❖ Habitat conservation and protection

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## **Main Obstacles vs. Main Driving Forces**

- Administrative and legal constraints
- Lack of trained staff
- Lack of monitoring data
- Not defined target ecosystem status
  - ❖ Commitment and support provided by competent authorities
  - ❖ NGO and local communities involvement and support
  - ❖ Possibility to use restored site for various educational purposes

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## Lessons learned



- More resources to collect and investigate data concerning area / sector of interest,
- Prioritisation approach in relation to pressures and impacts
- Clearly defined objectives
- Monitoring from day 1, including a long-term monitoring program
- Awareness activities and participation of local stakeholders increase local support

