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Wetland and Land Use Assessment - lessons learned and applicability

Project output 1.4

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content

1. aims, objectives & structure of the project
2. case study sites
3. results
4. lessons learned & recommendations

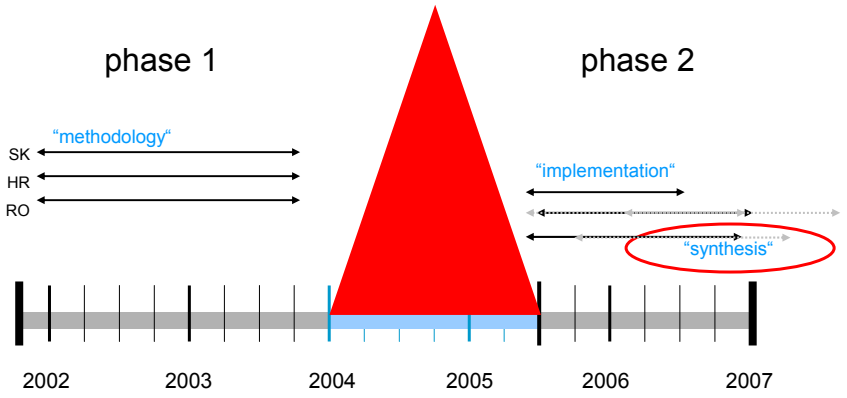
aims & objectives

*"...help to assist Danube countries to prepare **new land use and wetland policies** in line with existing and emerging legislation, particularly the EU WFD" .*

aims & objectives

1. develop a land-use assessment methodology
2. select 3 pilot sites to test methodology
3. together with local stakeholders:
   develop specific land-use concepts,
   recommendations & work plans
4. implement technical mitigation measures &
   alternative land-use concepts
5. mainstream wetland conservation in rural
   development plans and policy (locally, nationally)
6. demonstrate mechanisms across the DRB

structure of the project



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part 2 - pilot sites:

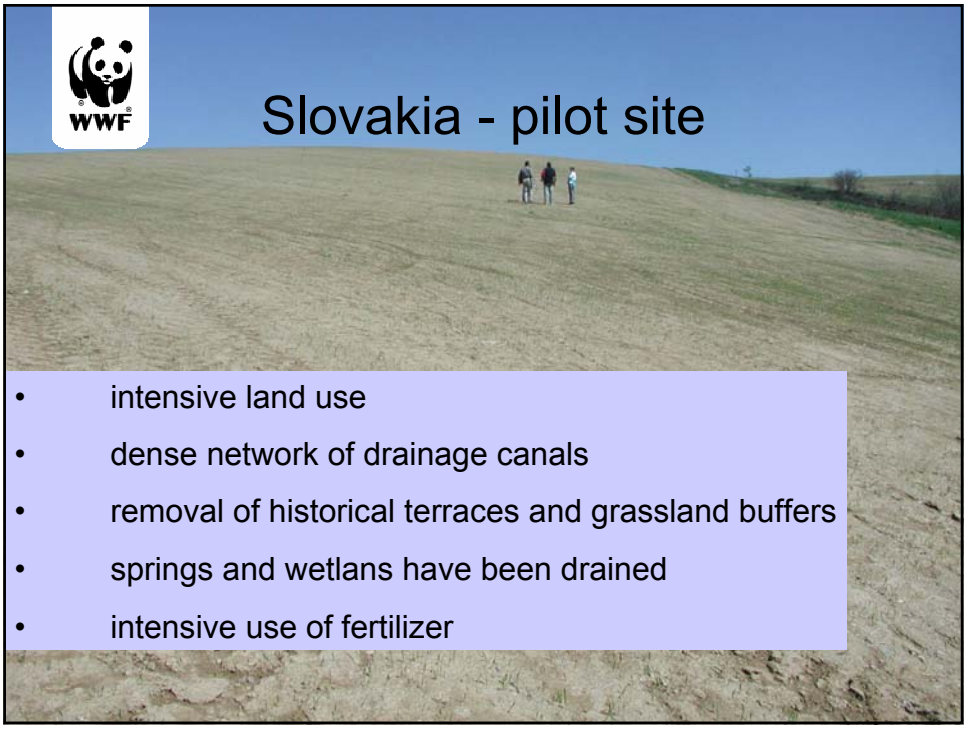
Where has this been implemented?

pilot sites

Slovakia - pilot site

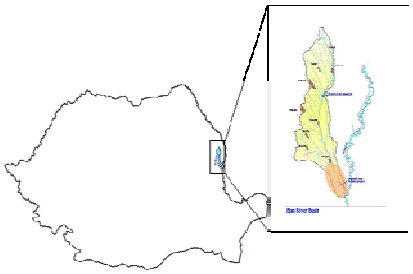
- Olsavica river basin – Tisza sub basin
- 1400 ha
- upland character and plateau (> 1000m a.s.l.)
- arable land & intensive grass (40%), forest, extensive grass land

- wetlands: fragments of submontane/montane forests & wet grasslands


Slovakia - pilot site
• intensive land use
• dense network of drainage canals
• removal of historical terraces and grassland buffers
• springs and wetlans have been drained
• intensive use of fertilizer


• flooding
• massive soil errosion
• nutrient loads of watercoureses
Slovakia - pilot site

Romania - pilot site



- Lower Elan valley – Prut sub basin
- 620 ha
- “rolling hills” (100m-200m a.s.l.)
- arable land (60%), forests, natural grass land, vineyards

- wetlands: only along the Elan river

Romania - pilot site

- agricultural system: mainly of up-to-down-hill farming
- 85% of agricultural area: split into excessively small plots; each site <1ha
- Elan river: dikes along right bank & canalization

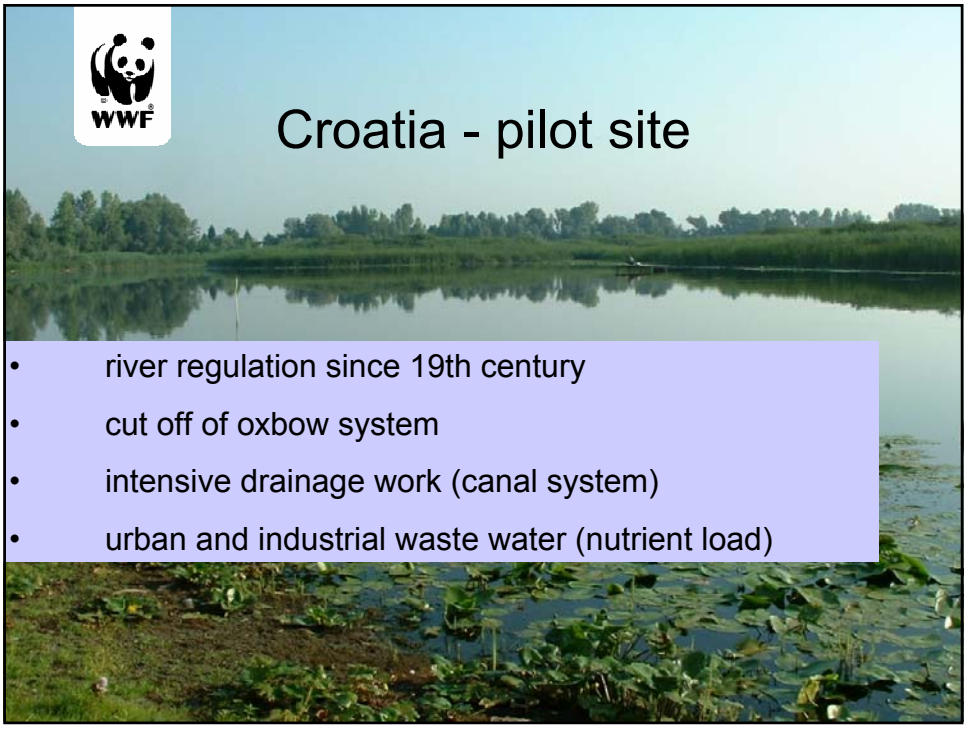
Romania - pilot site

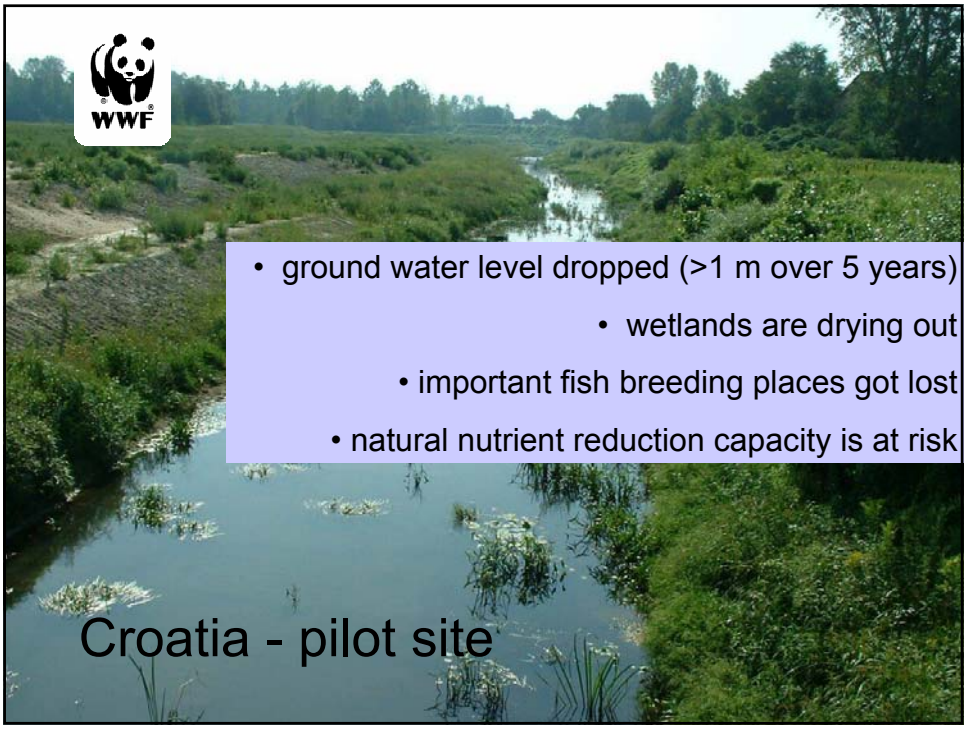
- excessive hillside erosion
- nutrient rich sediment input in river system
- right side of the Elan floodplain disconnected
- reduced fishing

Croatia - pilot site

- Drava river (Virovitica) – Zupanijski canal & Budakocvac wetlands
- 2400 ha
- lowland area (120 m a.s.l.)
- arable land (> 60%), reed, meadows, floodplain forests

- wetlands: extensive pattern of oxbows, reed-beds, old arms systems and islands


Croatia - pilot site
• river regulation since 19th century
• cut off of oxbow system
• intensive drainage work (canal system)
• urban and industrial waste water (nutrient load)


• ground water level dropped (>1 m over 5 years)
• wetlands are drying out
• important fish breeding places got lost
• natural nutrient reduction capacity is at risk
Croatia - pilot site

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part 3 – results:

What has been done to improve the situation?

results

1. developing methodology
2. implementing measures on the ground
3. mainstreaming in plans and policy

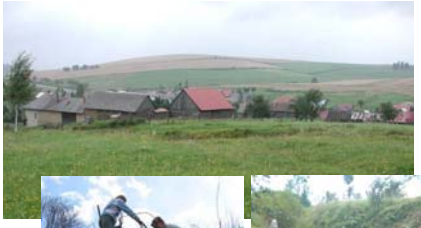
(1) methodology

successfully developed & applied in all 3 pilot sites

- GIS mapping for each site
- overview of relevant strategies, plans & policies
- illustration of threats, impacts & pressures
- assessment of ecological optimal
- stakeholder workshops at each site
- action plans for each site

(2) implementation

completely successful in Slovakia



trees

small dams & reopening meanders

mulching & wetland restoration

drainage system & sprigs fenced

(2) implementation

partly completed in Romania

land reclamation

trees (partly)

reconnect meanders

flood events

(2) implementation

needs to be finalized in Croatia

topographic survey

dredging old meanders

re-connect oxbow sysem

(3) mainstreaming

successful in Slovakia and Romania but difficult in Croatia

(3) mainstreaming

success in Slovakia:

- broad support from various administrative bodies
- local partner Daphne:
  awareness campaign/seminars about importance of wetlands in RBM throughout Slovakia
- training about 300 participants in 10 workshops by using GEF 1.4 as case study
- “buy-in” from managers on local, regional & national scales
- pilot case: EU funds for agri-environmental measures and lobby national Rural Development Plan.

(3) mainstreaming

success in Romania:

- good cooperation among technical team, Basin Committee and Prut Water Directorate
- article in the magazine of the Prut Directorate put the project in a broader context of management of the LDGC
- publication on web page of Prut Directorate supported magnification of the project ideas
- helped to nominate parts of the project area as N2000 (SPA)
- site already validated at national level

(3) mainstreaming

constrains in Croatia:

- good support on local level but very weak support from national administration
- project was suffering from the dramatic fatality of our local project manager
- no EU or EU accession country
- only the personal involvement of the Director of Development at HR Waters ensured project progress at the end (after 1,5 years)

(3) mainstreaming

individuals and stakeholder involvement
were key for success at all sites

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part 4 –
recommendations:

What are the lessons learned?

lessons learned

1. setting goals & objectives
2. applying & implementing the methodology
3. influencing policy decision makers

lessons learned

- setting goals & objectives -

1. **carefully planned land use changes:** can provide significant contribution to wetland restoration
2. **capacity building on the ground:** key for sustainable wetland management
3. **bottom-up model:** very important but not sufficient to influence plans & programmes on national or international scales

lessons learned

- setting goals & objectives -

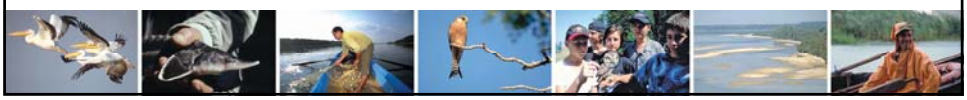
4. **policy goals:**
   too ambitious – instead of helping “DRB countries” prepare new land-use policies, the project should rather help to assist “River Basin Districts” to apply new land-use and wetland policies wisely.

lessons learned

- applying & implementing the methodology -

1. **GIS mapping & visual information:**
   most successful instrument to communicate and convince stakeholders at each level

2. **data availability:**
   data are available but quality depends strongly on commitment of local experts



lessons learned

- applying & implementing the methodology -

3. **timing was most crucial:**
   credibility needs continuity
   & unexpected conditions create constrains
4. **local leaders & supporters:**
   essential for successful implementation
5. **stakeholder workshops:**
   key elements for defining appropriate
   work plans at all 3 pilot sites

lessons learned

- influencing policy decision makers -

1. **shortage of information & knowledge:**
   local level might need better training on EU
   relevant policies
2. **enforcement is often stumbling block:**
   sufficient legislation in place but implementation is
   weak as long as EU funding sources are unknown
3. **magnification:**
   no spontaneous interest on national level but
   requires specific interventions to promote results

lessons learned

- influencing policy decision makers -

4. **WFD implementation:**
   needs boost to support wetland conservation and restoration mainly by connecting water bodies & linking management plans or concepts

5. **agriculture and flood protection:**
   fields of particular importance to support wetland initatives; agri-environmental measures were very successful to support wetland restoration

summary

1. project provided valuable contribution to wetland restoration activities

2. provided evidence to restore wetlands by changing land-use concepts

3. methodology is applicable in different regions and created local win-win solutions

4. success & failure depend on individuals: “local leaders” & “administrative ambassadors”

5. we recommend to use this methodology but add a strict monitoring & evaluation system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Thank you!


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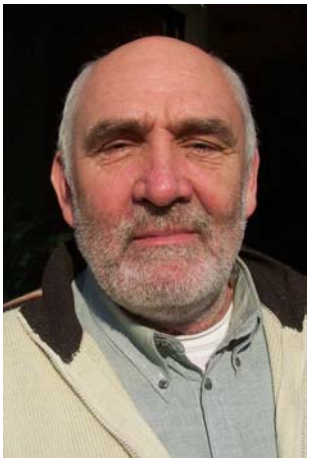
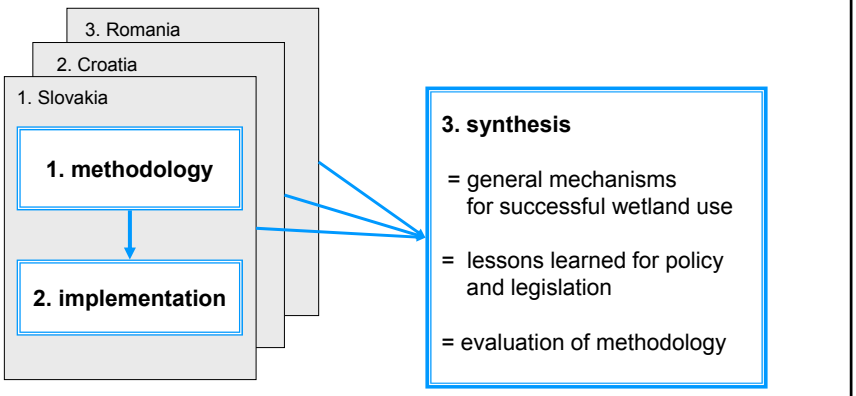


We would like to dedicated this project to

David Reeder †

structure of the project



pilot sites: selection criteria

- accessible base of information
- credible stakeholders
- significant value for biodiversity
- multiple use and benefits
- contribute to knowledge on nutrient reduction, pollution control, flood protection
- support from governmental agencies and authorities

ecological optimum