

Transboundary Project on Nature Conservation, Restoration and Sustainable Socio-Economic Development on the Lower Danube Bulgaria/Romania



18-20.April 2007

Final Wetlands Workshop UNDP/GEF Danube Regional Project/ Tulcea, Romania

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Nature conservation and restoration in the new EU countries Romania and Bulgaria



DBU Deutsche Bundesstiftung Umwelt /
German Federal Foundation for Environment



WWF Germany

Partners:

- National Offices in Bucharest and Sofia of the WWF International-Danube Carpathian Programme
- Danube Delta National Institute Tulcea
- Romanian Ornithological Society
- National Museum of Natural History „Grigore Antipa“
- Environmental Protection Agency Giurgiu
- Natural Park Russenski Lom
- Bulgarian Nature Parks Directory
- Other local and regional authorities

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The project

Transboundary Nature Conservation Bulgaria and Romania

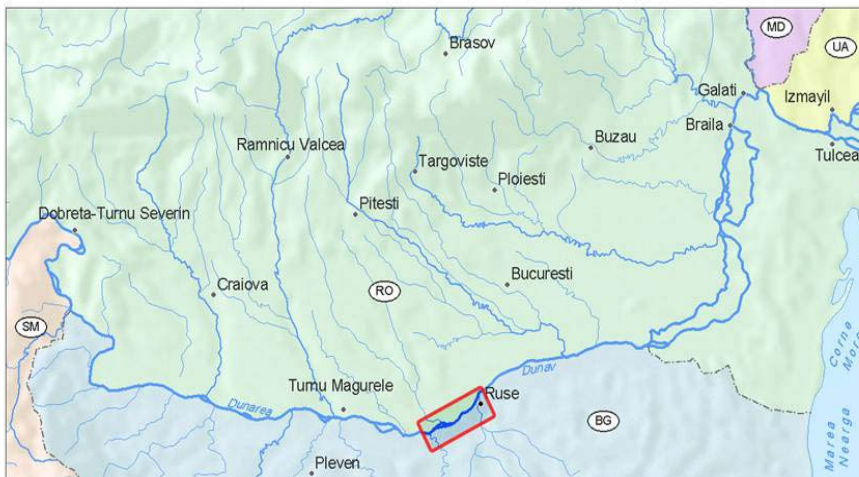
Nature protection and conservation

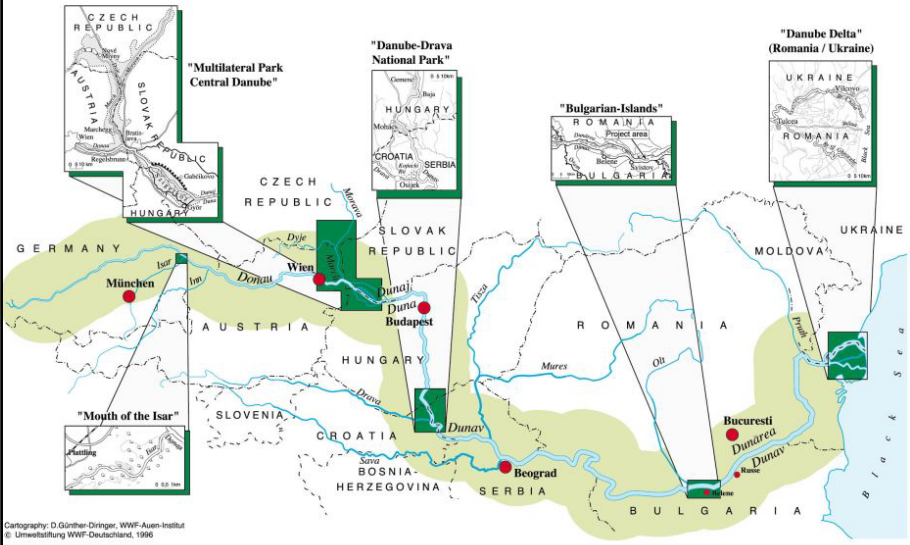
Restoration

Sustainable development



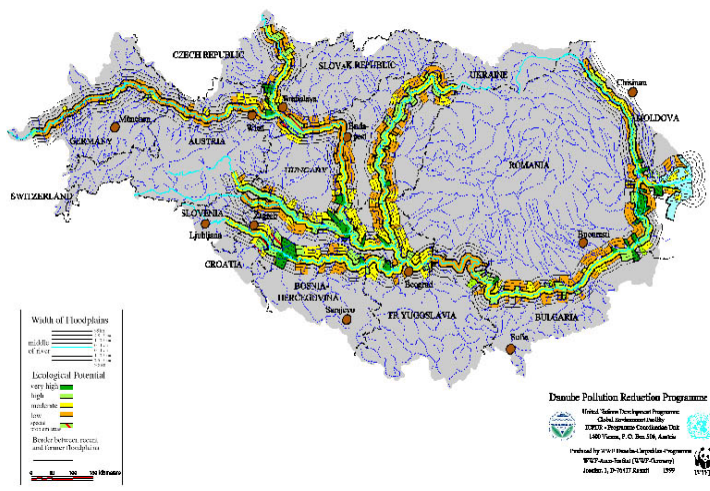
Position of the project area on the Bulgarian-Romanian border





Cartography: D. Günther-Dringer, WWF-Auen-Institut
© Umweltschutz WWF-Deutschland, 1996

Ecological potential of floodplains in the Danube River Basin



Width of Floodplains
 0-100
 100-200
 200-300
 300-400
 400-500
 500-600
 600-700
 700-800
 800-900
 900-1000

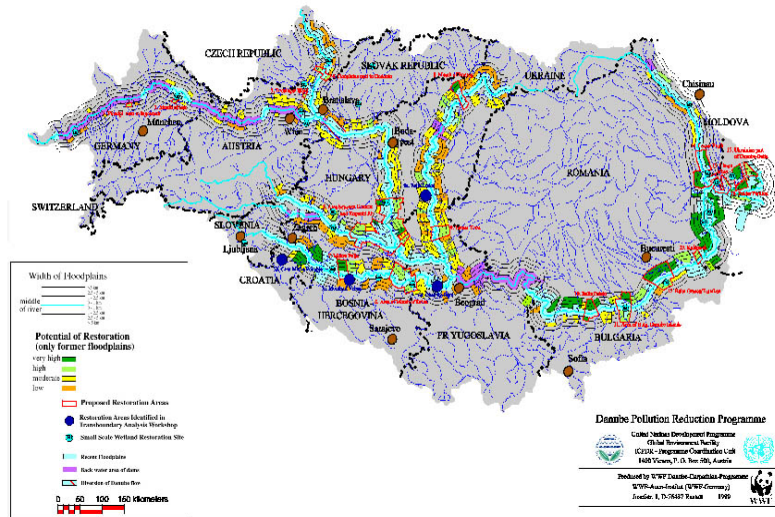
Ecological Potential
 very high
 high
 moderate
 low
 very low

Banks between rivers and former floodplains

Danube Pollution Reduction Programme

 Produced by 2004 Danube Pollution Reduction Programme
 WWF-Auen-Institut (WWF-AWI)
 Institut f. 20-1017 April 1999

Restoration potential of former floodplains in the Danube River Basin



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The Lower Danube Green Corridor

A large transboundary initiative for an ecological functioning

biocorridor, a network of

- **protected area, planned protected area, restoration area**

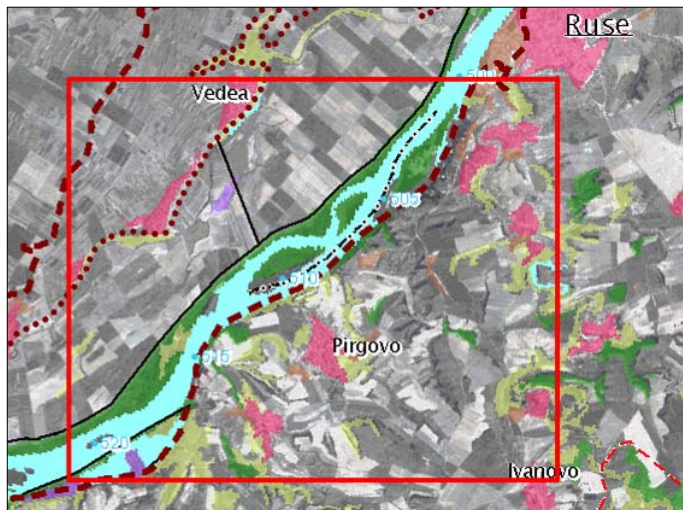


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Overview of the pilot area of the PHARE Cama-Dinu Project (2004) between Danube km 521-500



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PHARE Cama-Dinu Project (2004) between Danube km 521-500, Tasks

1. Inventory of species and habitats/ determination of biodiversity
Screening of chemical parameters in surface water, suspended solids, river sediments and mussels
Documentation for Cama-Dinu as a protected area
2. Monitoring **Cama-Dinu area**:
 - Species and habitats
 - microbiological parameters in surface waters
 - chemical parameters in surface waters, suspended solids, river sediments and mussels
 - hydrological parameters
 - air quality
3. Species and habitats **Lower Danube Green Corridor**:
 - Inventory of significant species and habitats
 - Identification of protected area and preparation of documentation
 - Identification of the main reconstruction area

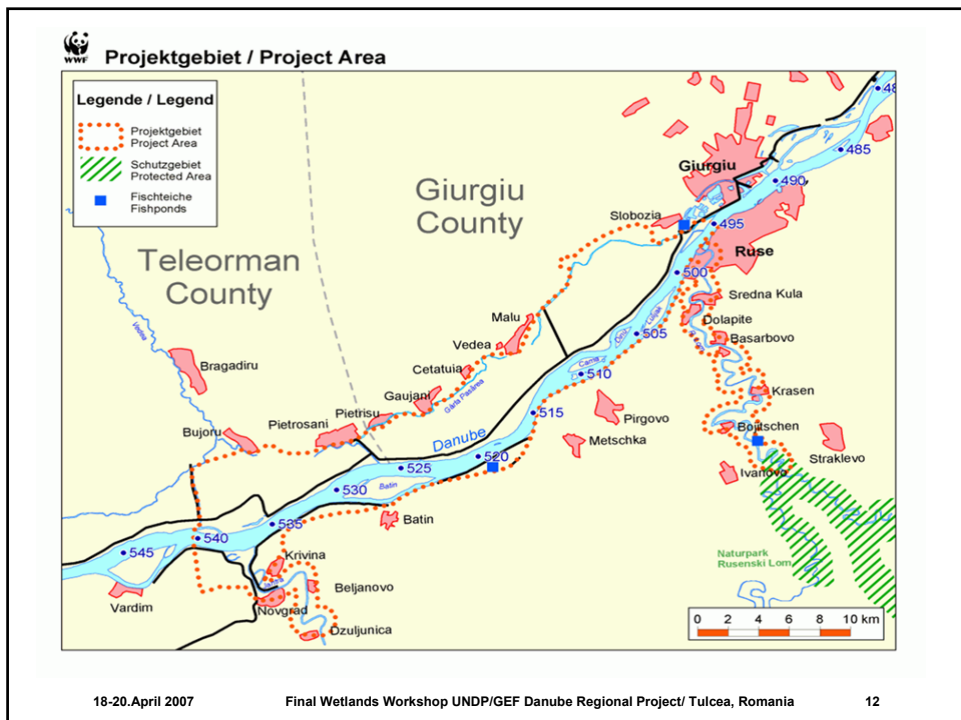
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Identification of the main restoration in the recent and the old / morphological floodplain:

- **Abandoned Fishponds**
- **Agricultural polders**
- **Water body systems (connectivity)**
- **Abandoned industrial area**
- **Abandoned hydrotechnical construction area**
- **Artificial forests**
- **Artificialised landscape area**





Villages on the terrace border with still existing traditions





Bulgarian tributaries of the Danube : Lom and Jantra



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Main project objectives / activities 2006-2008 in Bulgaria & Romania

Bulgaria

- **Enlargement of the Nature Park** Russenski Lom from the actual park border to the mouth of Lom into the Danube
- **Feasibility study** of the restoration of the fishponds on the Lom river and on the Danube/Metshka)
- **Designation of a protected area** on the Lower Jantra/tributary of the Danube

Romania

- Elaboration of a **Management plan** for the protected area Camadinu
- Analysis and check of possibilities for the **enlargement of the PA**
- **Feasibility study for restoration** of the water course system Veedea/ Gârla Pasarea, meadows at Saica and habitat improvement on the cliff
- **Feasibility study for restoration** of abandoned fishponds Slobozia

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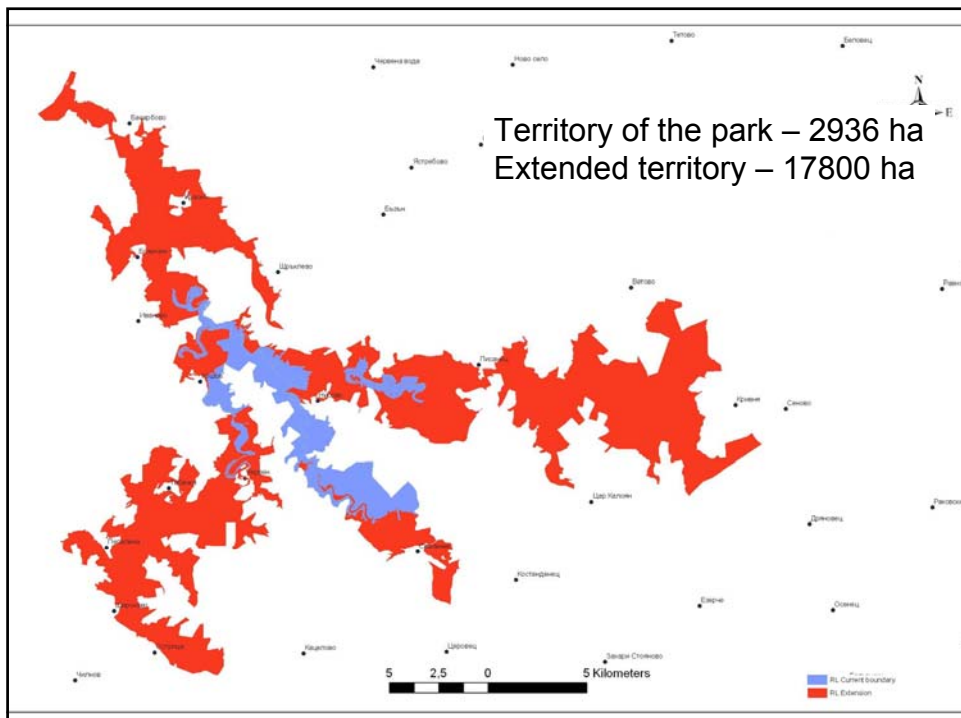
Project activities in 2006-2008

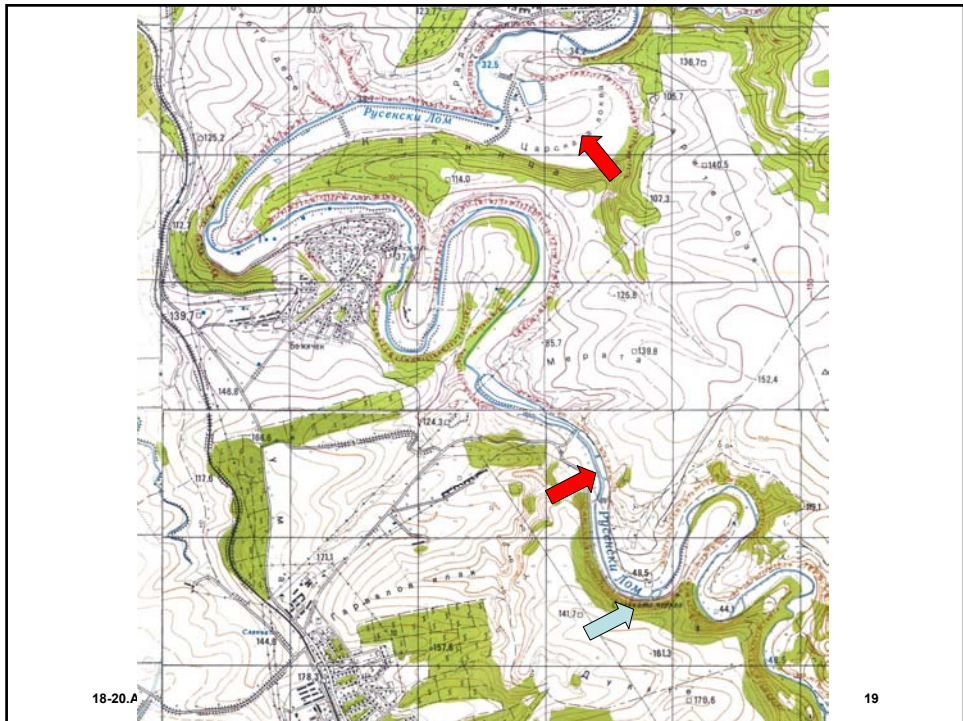
- Study the possibilities of the **extensification/ change of land use** in the old floodplain (Romania) between the flood protection dyke and the terrace border in a selected section/ community
Socio-economic study with interviews of local people →
concept paper for sustainable rural development and nature protection
- Training, capacity building and monitoring (Bulgaria & Romania):
 - Evaluate management of protected areas in the project area/Green Corridor and develop recommendations
 - Training in conservation management, restoration and ecological monitoring
 - Training concerning financing of NATURA 2000 from structural funds

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Mechka fishponds (area 370 ha)





Part of the Cama-Dinu protected area habitats map

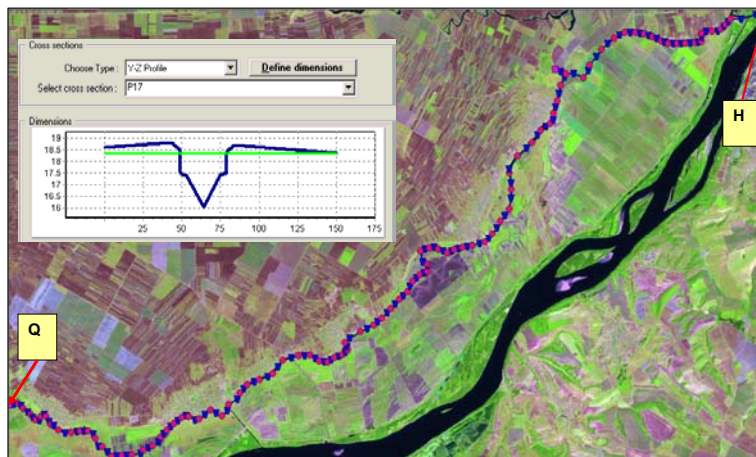


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Feasibility study for restoration of the floodplain water course Vedea/Gârla Pasarea between Bujoru and Slobozia

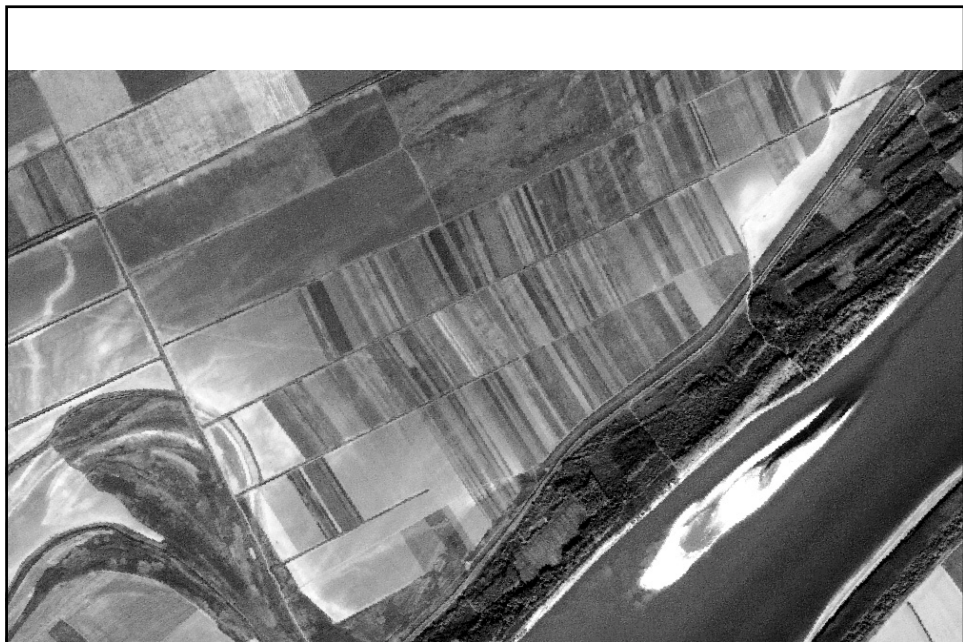
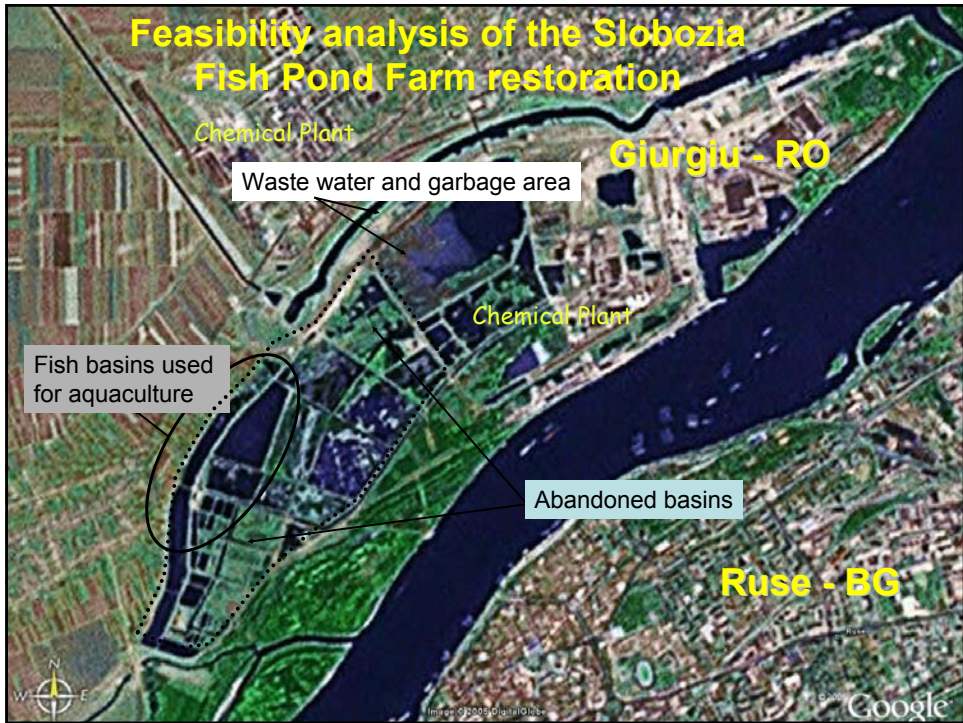


Hydraulic model for Pasarea Stream (Danube Delta National Institute Tulcea)

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Requirements for the success of the project

- Knowledge of functions and ecosystem functioning : interaction river / floodplain, changes (hydrological, climatic, man made etc.) in the system and their consequences
- Present status of the environment including:
 - Hydrological regime, morphodynamics, sediment balance, water quality (WFD),
 - biodiversity (FFH / NATURA 2000 species, habitats)
 - Land use (agriculture, forestry) incl. traditional activities if still exists; former land use
 - other activities in the area
- Analyse of the actual socio-economic situation of the local people (needs, possibilities and constraints)

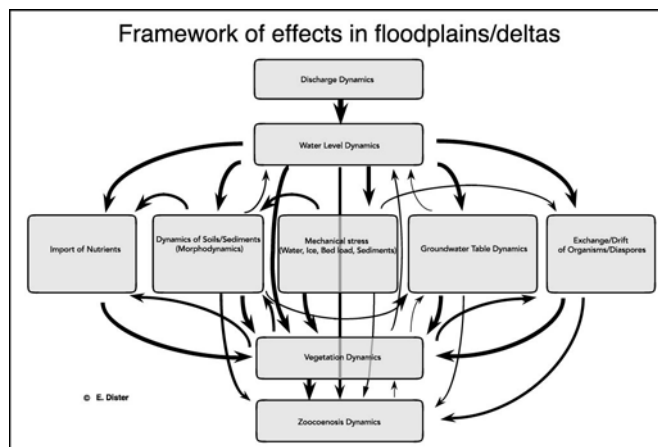
Requirements for the succes of the project

- To create understanding for quality of the environment, functioning of the ecosystem, the values of the area and for an ntegrated management and sustainable development
- To inform authorities and interested user groups/stakeholders about advatages of changes in land use and restoration, benefits, possibilities for use of structural fonds and sustainable amangement of rессources
- To involve in an early planning phase the local and regional authorities, stakeholders and to assure regularly information and exchange in different planning phases (information workshops, meetings)

Knowledge of functions and ecosystem functioning
 The **Danube river** with numerous islands, islets, and the adjacent **floodplains**, the large “balta”- area with lakes, floodplain water courses and the tributaries – constitutes all together a complex functional unit



Knowledge of functions and ecosystem functioning





Present status of the environment: Biodiversity and habitats

In the recent floodplain (river with islands and area between river bank and floodprotection dyke):

- Old branches, oxbow lakes
- Temporary dry flood channels
- Free area for pioneer settling
- Softwood forest of different age classes
- Relicts of hardwood floodplain forests on natural high river bank levees (partly with high structural diversity)
- Relict area of extensive used floodplain meadows

In the old floodplain:

- Remained wetlands
- Water courses
- Old flood channels
- Fallow lands
- Grasslands
- Agricultural lands
- Terrace border with loess cliffs
- Villages on the terrace with traditional rural character



Present status Biodiversity in the project area





Glossy Ibis



White Heron



Bee-eater

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White-tailed eagle

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Pelicans

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The Black Stork have the breeding places in the calcareous rocky caves of Lom valley



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Bat: *Myotis myotis*



Bat: *Rhinolophus hipposideros*



Otter
Lutra lutra
Foto A. Kranz



Types of habitats (FFH-Directive Natura 2000) Freshwater habitats

Standing waters

3150: Natural eutrophic lakes with Magnopotamion- or Hydrocharition-type vegetation



Running waters

3260: Watercourses of plain to mountain levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation





Habitat types (FFH/ Natura 2000)

3270: Rivers with muddy banks with *Chenopodium rubri* pp. and *Bidention* pp. vegetation



Habitat types (FFH Natura 2000)

Mosaik of:

Semi-natural tall-herb humid meadows

6430 Hydrophilous tall herbaceous fringe communities of plains and of the montane to alpine levels

6440 Alluvial meadows of river valleys of the *Cnidion dubii* mesophile grasslands

6510 Lowland hay meadows/ meadows of low altitude





Habitat types (FFH/ Natura 2000)

Forests of temperate Europe

91 E0 *Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, *Alnion incanae*, Salicion albae)



Habitat types FFH/ Natura 2000)

91 F0:

Riparian mixed forests of *Quercus robur*, *Ulmus laevis* and *Ulmus minor*, *Fraxinus excelsior* or *Fraxinus angustifolia* along the great rivers (*Ulmion minoris*)





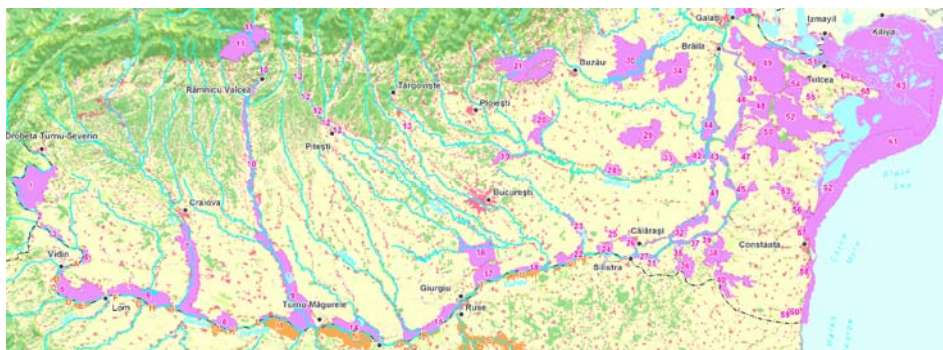
Habitat types FFH/ Natura 2000

Mediterranean deciduous forests

•92A 0 Salix alba and Populus alba galleries
(this type of forests exists in the Danube floodplain and have transition character between typical mediterranean gallery-like riparian forest and these of the Lower Danube)



Importance of the NATURA 2000 Network on the Lower Danube



Socio-economic analysis, pressures, threats

Social

- Age structure of population, migration tendencies of young people,
- Conception that rural environment is unfavourable for development
- Lack of infrastructure,
- only small local initiatives

Political

- Lack of communication between local leaders and local councils
- not enough active role of local administration concerning the management of public area

Economic

- dominance of agriculture of subsistence
- monopol in land concession of large commercial societies
- Small diversification of economic activities,
- No new equipment, poor investment, fragmentation of fields
- unclarified ownership situation
- Fishery only with special permission (not free for locals)

Key principles for sustainable development

- Diversification of activities— essential for the possibilities to ensure diverse sources of income and distribution of risks
- Associations of producers to facilitate different activities
- Attraction of investments for tourism, valorification of local products, handicrafts;
- Identification of „early promoters” for changing the thinking and introduction of new alternatives for the local people
- Evaluation of the development of diverse schemes of subventions and grants for local people and administration (dossier for accession of funding sources, instruction, information etc)

The project as a contribution for IRBM

- The project with integration of nature conservation, restoration, socio-economic analysis and development concept can be a model to be applied in other similar sites, a „puzzle stone“, as part of a network for IRBM
- Restoration of the connectivity of Gârla Pasarea a measure for improvement of Water quality (WFD), reactivation of traditional fishing and contribution for improvement of flood protection
- The network Natura 2000 offers the instruments for nature protection, resources use and a sustainable development of the area
- Change of land use is a possible way for more friendly agriculture in favour of the local people

Thank you for your attention!
Danke, dakujem, köszönöm, kvala, blagodaria,
multumesc, spasibo

