



Innovations according to best European practice for the restoration of River Irpin in Ukraine

(Focus on land and water planning in the river basin)

Institute of Water Problems and Land Reclamation
(Academy of Agrarian Sciences, UA)

M. Romashchenko, O. Zhovtonog, M. Hoffmann, I.Voytovich,
J. Danilenko, T. Yatsinjuk, O. Kozitskiy

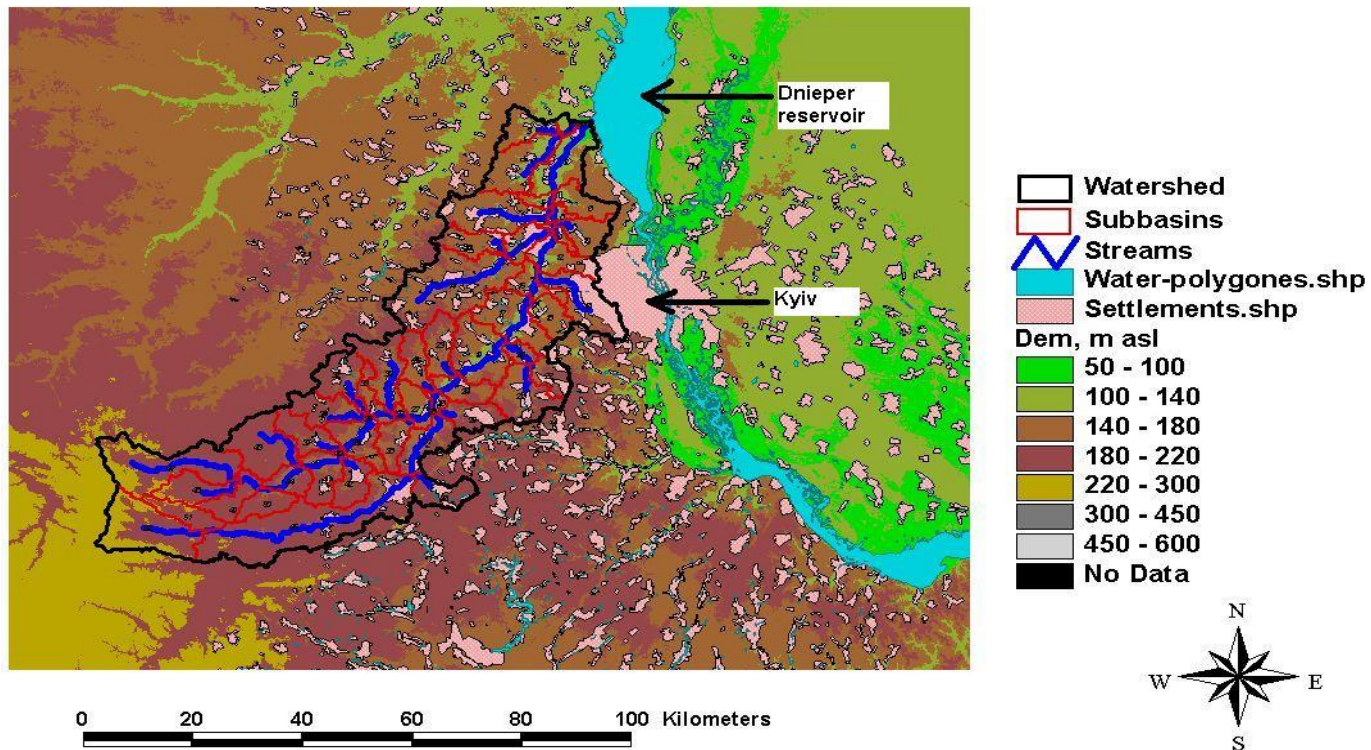




Activities to restore and protect the Irpin River and its catchment

A) On government level:

1. Implementation (adaptation) of the WFD in Ukraine
2. Dnipro program including the Irpin catchment





Activities to restore and protect the River Irpin and its catchment



B) On local level:

1. Integrated Water Resources Management → river basin approach, presentation of scenarios based on GIS models;
 - a) Water Boards → initiate the Stakeholder (SH) process to discuss alternative solutions. A plan was already developed, disseminated and discussed among local SHs.
 - b) public hearings and participation under preparation
2. Regional Water Management, Authorities → control and, if needed, decision to restore drainage systems

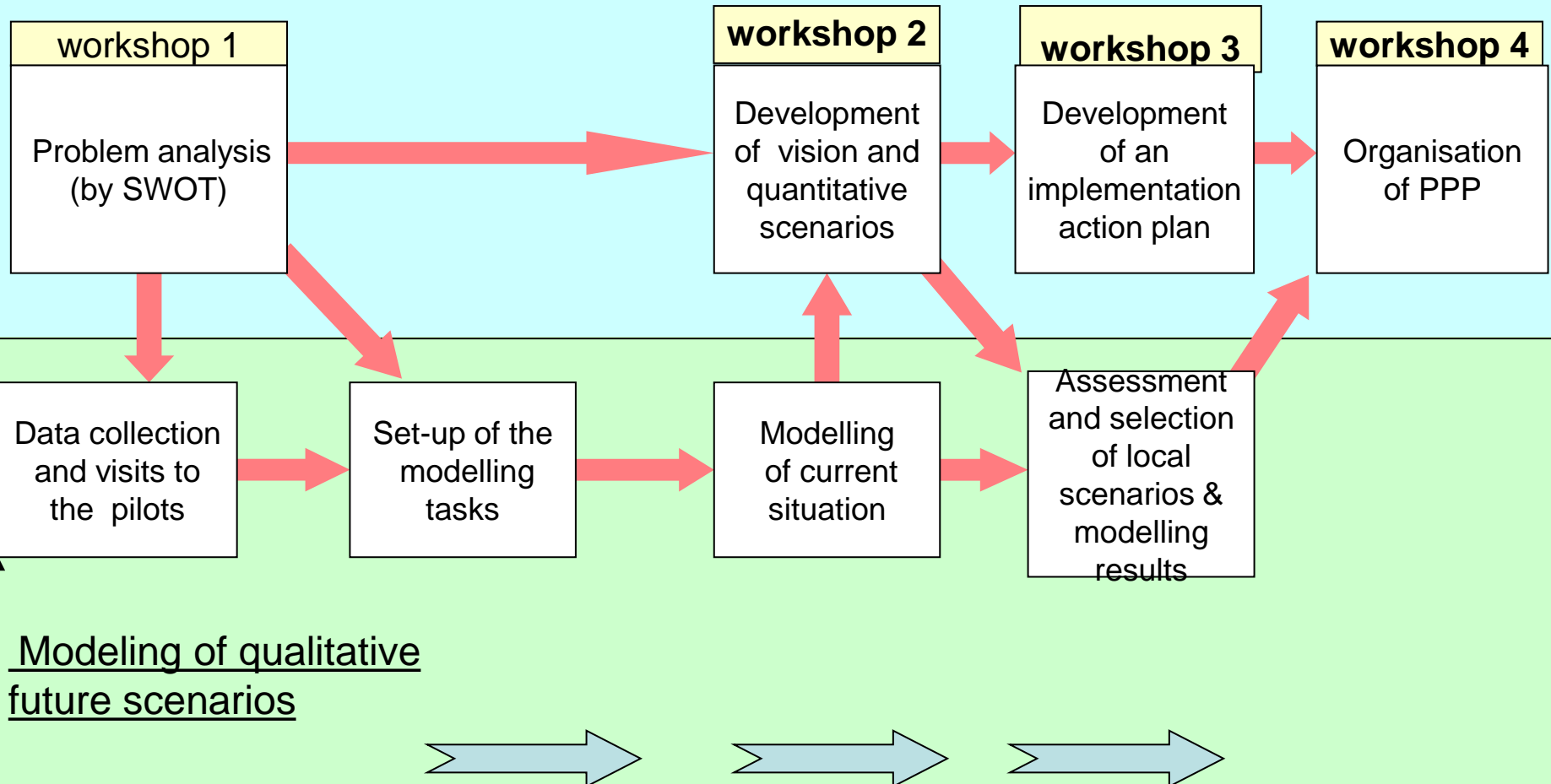




Tool basket and methods from best practices of ECRR and pilots

Knowledge base	Reference
<p>Development of strategic territorial plans for nature resources management in the basin taking into account climate change, protection of biodiversity and environment as well as business interests (agribusiness, recreation etc.) and rural development issues</p> <p>Environmental Impacts Assessment</p>	<p>Pilot projects in ECRR countries</p>
<p>Software for river hydromorphology assessment, SWAT, AVWGLF, HEC-RAS, etc.</p>	<p>Various alternatives on EU countries' websites GIS-based models</p>
<p>Cost/Benefit Analysis for organisation Of Public- Private Partnerships</p>	<p>NL</p>
<p>Land - water consolidation plans with Land banking tool</p>	<p>DLG, FAO, World Bank projects</p>
<p>More room for river (floodplain) and for biotopes HEC-RAS (GIS-based modeling), stakeholder workshops</p>	 <p>Flood Directive</p>
<p>Interactive methods of stakeholders involvement: Sketch&Match, scenario development (details on next slide)</p>	

Stakeholders process for development of integrated land and water management plans



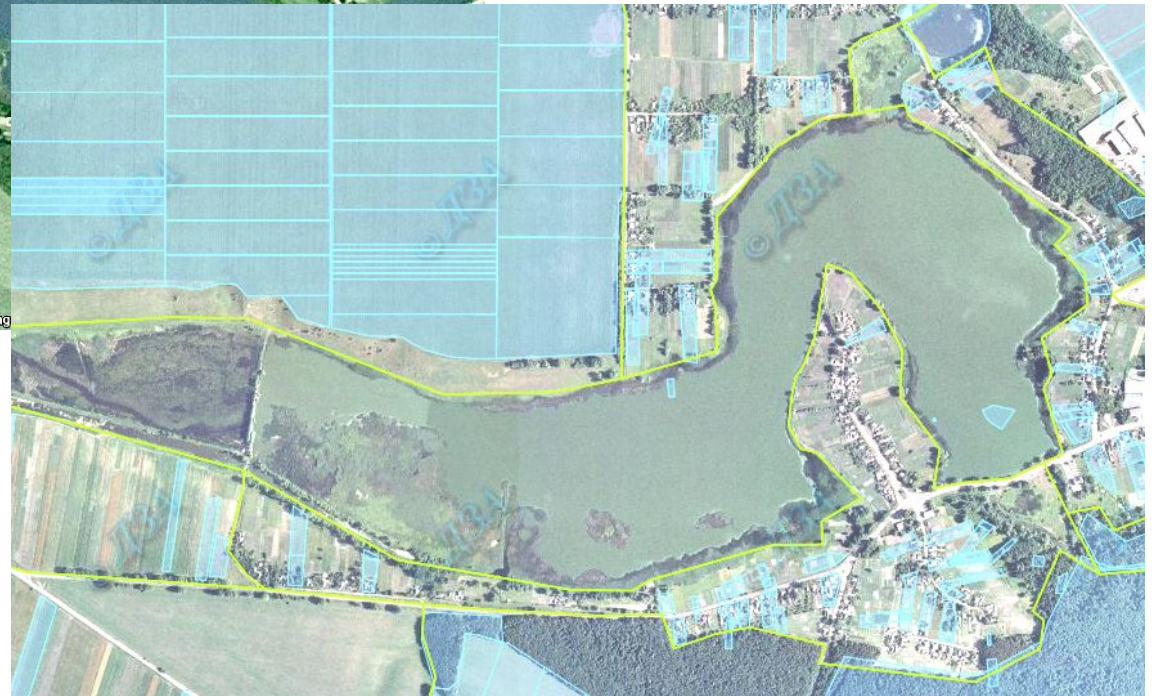


Land and water consolidation to restore the Irpin River system, aiming at ecological, social and business sustainability

- Develop a pilot area of around 20.000 ha in the Irpin River basin
- Registration of ownership, actual state, business and landuse potential
- Planning landuse changes respecting the need of people and nature, based on GIS and modelling of scenarios
- Land consolidation and land bank
- Stakeholder process and public participation, conflict solution, support of politics, youth education
- Assessment of the ecological state and implementation of WFD principles (test pilot selected subbasin)
- Cost estimation and fund raising



Problems related to landuse (Irpina tributary SW of Fastiv)





Problems related to construction of dams (r. Irpin)





Solutions and steps to go

1. Changes of landuse:

- Use of GIS and GIS based cadastre maps
- Modelling landuse changes alternatives (SWAT) → consequences for water quantity and quality
- Work with stakeholders

2. Assess the need of existing dams

- Limnological investigation of reservoir state (depth profiles)
- Hydrological measurements and GIS analyses of discharge
- Discussion of solutions with stakeholders on e.g. change of dams position or outlet design



Contact

Please send your questions or ask for more information !

OlgaZhovtonog@aim.com

RR website will be reachable through: <http://www.igim.org.ua>

Thanks for your attention !