2nd Meeting on the Follow-up of the Joint Statement on Navigation and Environment in the Danube RB

Sub-work Package 5.3 Interdisciplinary Dialogue on IWT infrastructure

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Preparatory Steps since 2008
Assessment of the status quo in IWT planning
Identification of examples of best practise planning
Identification of the concrete needs for better planning
Drafting the Manual in 2009

Detail development
Discussion of first draft Manual at 2 stakeholder workshops
(interdiscipl. dialogue using concrete model cases)

End 2009: Revision of the draft by ICPDR, VIA & BOKU
commenting of advanced draft) and publication/dissemination.
Manual objectives

Illustrate the **Joint Statement** with its principles & criteria

Present **new legal framework conditions** for river management

Present **new approaches in integrated planning**

Provide a **general practical guidance** for integrated planning

**Examples** ecology-oriented waterway and river bed engineering
1. Target groups
+ IWT Planners
+ Beneficiaries (various relevant government bodies, competent national and international stakeholders, experts and the EC)

2. Manual contents
+ Suggested structure and subjects meet expectations & needs
+ Tool to find a well coordinated and balanced project result
+ Follow the JS and a „red line“ of process and main themes
+ Add an exclusive list of „good practise“ examples
+ A lean and living document (practical annex) to be translated
+ Links, contacts.
Part A: Introduction, benefits, policy & legal background

Part B: Illustration of key steps securing successful planning incl. preparation, organisation, result sustainability

Part C: Basics of river ecology and legal requirements Illustrating examples of integrated planning and of measures in- and outside the fairway

References, useful links
Main guidance
(based on other guidances and various experiences)

The essential features for integrated planning are:

- Identify **integrated project objectives** incorporating IWT aims, environmental needs and the objectives of other uses of the river reach such as nature protection, flood management and fisheries;

- **Integrate relevant stakeholders** from the initial scoping phase of a project;

- Carry out an **integrated planning process** to translate the IWT and environment objectives into concrete project measures securing win-win results;

- **Conduct comprehensive environmental monitoring** prior, during and after the project works, enabling an adaptive implementation approach if necessary.
Five planning stages

- **B.1** Define the scope of the waterway infrastructure project
- **B.2** Organise the planning process
- **B.3** Execute the integrated planning
- **B.4** Monitor the project
- **B.5** Implement the project planning
1. Prepare the planning

B.1 Define the scope of the waterway infrastructure project
B.1.1 Identify transport needs
B.1.2 Identify environmental needs
B.1.3 Identify other land and water uses and plans
B.1.4 Identify potential transboundary issues
B.1.5 Identify the integrated project objectives and benefits
B.1.6 Ensure financial means for the project
B.1.7 Identify and involve relevant stakeholders; communicate with the public

B.2 Organise the planning process
B.3 Execute the integrated planning
B.4 Monitor the project
B.5 Implement the project planning
2. Set up the planning teams

- B.1 Define the scope of the waterway infrastructure project
- B.2 Organise the planning process
- B.2.1 Assess the roles of government, competent authorities and relevant stakeholders (local, national, international)
- B.2.2 Establish the Project Steering Committee (PSC)
- B.2.3 Set up the Interdisciplinary Advisory Board (IAB)
- B.2.4 Contract the Technical Planning Team (TPT)
- B.2.5 Set up the Integrated Monitoring Team (IMT)
- B.2.6 Secure communication with the concerned and wider public
- B.3 Execute the integrated planning
- B.4 Monitor the project
- B.5 Implement the project planning
Recommended planning bodies

**Actors of an Integrated Planning Process**

- **Project Steering Committee (PSC)**
  - Supervision, responsibility
  - Government, waterway agency, funding institutions

- **Technical and Ecological Planning Team (TPT)**
  - Detailed project planning (database, calculation & modelling) + EIS
  - Contracted consultants with competence for navigation, river engineering, ecology, hydro-morphology, water quality, etc.

- **Interdisciplinary Advisory Board (IAB)**
  - Support and advise the PSC on decisions in all project phases (scoping, preparation and execution of planning, monitoring of works)
  - Experts for navigation, river engineering, ecology, hydro-morphology, water quality, etc.

- **Integrated Monitoring Team (IMT)**
  - Analysis of pre-project river situation and effects of project implementation, delivering basic information, evaluation of processes and measures
  - Scientists, research institutions regarding navigation, river engineering, ecologists, etc.
3. Do integrated planning

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**Step 1**
Define joint Planning Objectives and Principles

**Step 2**
Carry out the detailed planning of measures
- technical and ecological options
- plan alternatives
- variants of chosen alternatives
- local examination and/or testing
- priority ranking

**Step 3**
Conclude the integrated planning process (communicate and adopt results)

**Step 4**
Execute the EIA process and apply for environmental permits

Project developers should use these steps to create a dedicated Road Map for the planning process of their IWT project.
4. Monitor
5. Implement

ROAD MAP FOR INTEGRATED PLANNING

B.1 Define the scope of the waterway infrastructure project
B.2 Organise the planning process
B.3 Execute the integrated planning
B.4 Monitor the project
B.5 Implement the project
B.4.1 Define the monitoring programme
B.4.2 Contract and execute the monitoring (prior, during and after execution of works)
B.5.1 Contract the construction company
B.5.2 Execute and refine the project works

Step 1: Define joint Planning Objectives and Principles
Step 2: Carry out the detailed planning of measures
Step 3: Conclude the integrated planning process (communicate and adopt results)
Step 4: Execute the EIA process and apply for environmental permits

Photos: Zinke
Keep an eye on responsibilities and tasks

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<th>RESPONSIBLE BODY</th>
<th>ACTIVITY</th>
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<td>B.1 Define the scope of the waterway infrastructure project</td>
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<td>PSC</td>
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<td>TPT with support of PSC &amp; IAB</td>
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<td>IMT with support of IAB &amp; TPT</td>
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Take important aspects into account

**Combining** Environm. Impact Assessment (SEA/EIA-D), Nature Impact Assessmt. (BH-D)
WFD assessment - Art. 4 (7)

Make use of available knowledge & practical experiences
A) RIVER BANKS / NEAR BANKZONE
1. Alternative groyne types
2. Restored / unprotected banks

B) RIVER BED / FAIRWAY
1. Granulometric bed improvement
2. Chevrons

C) FLOODPLAINS
1. Reconnection of side-arms
2. Preservation / restoration of floodplains

### Summary
- **RIVER BANKS / NEAR BANKZONE**
  - Alternative groyne types
  - Restored / unprotected banks

- **RIVER BED / FAIRWAY**
  - Granulometric bed improvement
  - Chevrons

- **FLOODPLAINS**
  - Reconnection of side-arms
  - Preservation / restoration of floodplains

### Classification of river engineering measures according to their location
JS
Criteria for river engineering

The designers of technical measures should apply:
- Case-by-case approach
- Working with nature
- Integrated design (hydraulics, morphology and ecology)
- Adaptive form of measures
- Use of restoration potential
- Ensure no worsening of flood water levels

JS – Annex 2: Examples of possible measures

Photo: Schoor
Ex. reconstruction of Groynes
Austrian Danube Pilot Project Witzelsdorf

- River bank restoration and removal of the existing groyne field
- By-pass route for young fish and for reducing sedimentation in the groyne field
- Smaller scour at the groyne head
- New downstream-facing groynes lead to higher dynamics along the river bank

- Removal of old groynes and river bank restoration
- Construction of new groynes
Road Map for integrated planning

Improving riverine ecology while maintaining or improving navigability

Restored river banks

Reconnected side-arms

Down-sized groynes

Photos: via donau

Photo: B. Boekhoven, RWS-NL
Planning goal: Improve the multi-functional river-scape
Today, waterway administrations face a widening scope of tasks and responsibilities (e.g. WFD implementation). Modern waterway management requires them to do different planning, plans and works than in the past, and to dispose of a diverse range of technical staff. Agencies can become a service point for various users, supervisor of complex river projects, competence center for fairway management and river ecology.
The Manual aims to be one of the new tools

Developed by

Your comments? (by 26 March)

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