



Danube Regional Project

Workshop on Identification and Designation of Heavily Modified Water Bodies in the Danube River Basin

9-10 February 2004, Bucharest, Romania

Summary of Workshop



Institute for International
and European Environmental Policy

Wenke Hansen
Eleftheria Kampa

Ecologic, Institute for International and European Environmental Policy
Pfalzburger Straße 43/44, 10717 Berlin, Germany
Tel. +49 30 86 88 0-0, Fax +49 30 86 88 0-100, Email: Kampa@ecologic.de
Avenue des Gaulois/Galliërslaan 18
1040 Bruxelles/Brussel, Belgium

Contents

1	AIMS OF THE WORKSHOP	4
2	RESULTS AND DISCUSSIONS OF THE WORKSHOP	5
2.1	Session 1: Setting the scene	5
2.2	Session 2: Until 2004: Progress on HMWB identification	6
2.3	Session 3: Beyond 2004: Designation of HMWB	8
2.4	Session 4: Conclusions on HMWB in the Roof Report	8
	ANNEX I: AGENDA	13
	ANNEX II: LIST OF PARTICIPANTS	14

1 Aims of the workshop

Representatives of the Danube Basin countries including members of the River Basin Management Expert Group (RBM EG) of the International Commission for the Protection of the Danube River (ICPDR), as well as invited international speakers came together for the international workshop on "Identification and Designation of heavily modified water bodies (HMWB) in the Danube River Basin (DRB) on 9-10 February 2004 in Bucharest (the participants' list is available in Annex II).

The main aims of the workshop were to:

- share their experience with the EU Guidance Document on HMWB & AWB¹ and exchange information on national approaches, steps taken and status of the provisional identification of HMWB in the DRB,
- discuss and clarify possible technical criteria for provisionally identifying HMWB and to briefly discuss the designation of HMWB,
- agree on the content of the HMWB chapter of the roof report² and on a procedure for data and information delivery to the consultants and the ICPDR Secretariat.

In this context, the international workshop was part of the activities to assist the ICPDR and the thirteen basin countries in applying the EU CIS guidance document on HMWB to the Danube River Basin (DRB). The main focus of the workshop was the provisional identification of HMWB (see steps of this process in Figure 1) in the international DRB as part of the characterisation of the river basin district to be completed at the latest by the end of 2004. The designation of HMWB, which is required after 2004, was only briefly discussed at this workshop.

The identification and designation process of heavily modified and artificial water bodies (HMWB and AWB), which consists of 11 steps, is described in detail in the CIS Guidance Document on HMWB and AWB.³

In advance of the workshop, Ecologic prepared and circulated to all participants a background note presenting the aims of the workshop with regard to the steps of the identification and designation process for HMWB in the Danube Basin and with regard to main issues of discussion on the roof report. This background note can be downloaded from the UNDP-GEF website (<http://www.icpdr.org/undp-drp/>).

¹ WFD CIS Guidance Document No. 4 (2003) Identification and Designation of Artificial and Heavily Modified Water Bodies. January 2003 Published by the Directorate General Environment of the European Commission, Brussels. <http://forum.europa.eu.int/Public/irc/env/wfd/library>

² The roof report is part of the 2004/2005 report to on the Danube River Basin to the European Commission. The 2004/5 report to the Danube River Basin consists of two parts: Part A is the roof report with information of basin-wide importance and part B consists of the national reports.

³ WFD CIS Guidance Document No. 4 (2003) Identification and Designation of Artificial and Heavily Modified Water Bodies. January 2003 Published by the Directorate General Environment of the European Commission, Brussels. <http://forum.europa.eu.int/Public/irc/env/wfd/library>

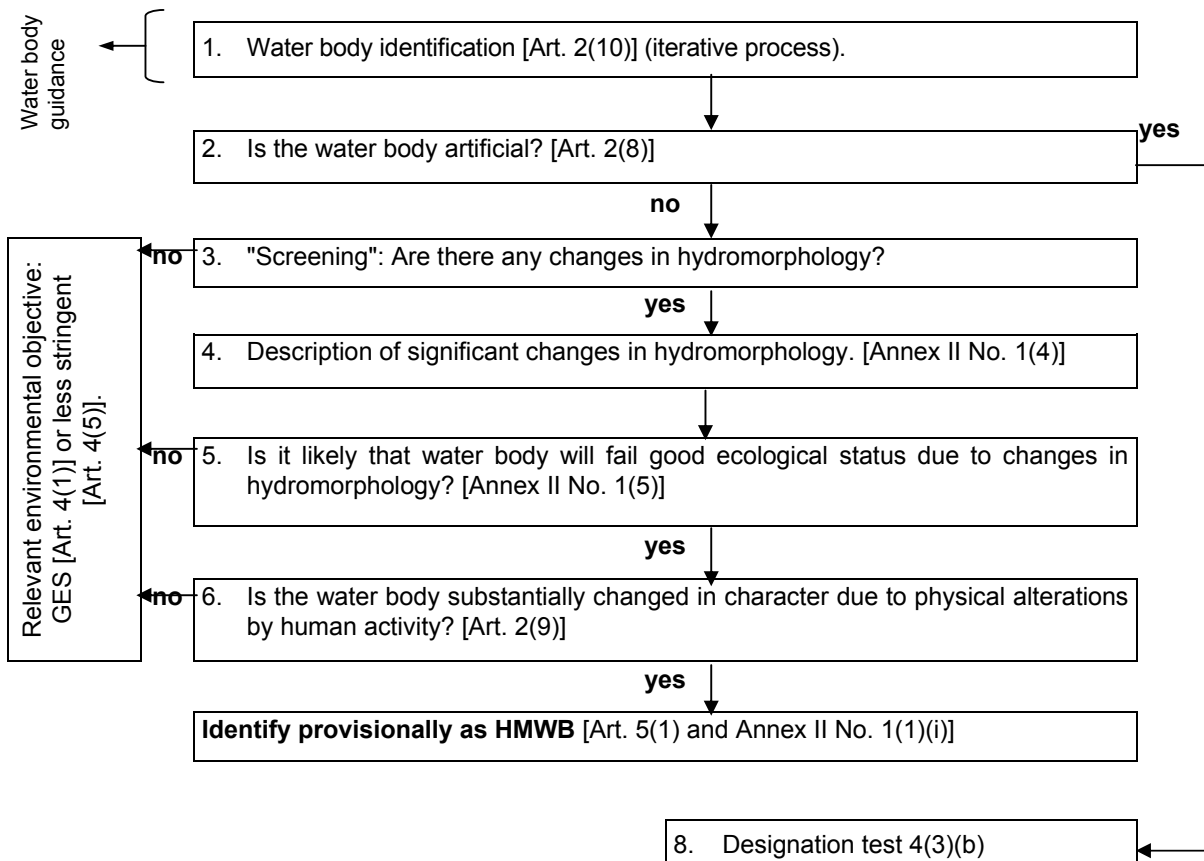


Figure 1: Steps leading to the provisional identification of HMWB (see EU Guidance Document on HMWB)

2 Results and discussions of the workshop

The following paragraphs summarise the main discussions and results of the four sessions of the workshop. The agenda of the workshop gives information on the individual presentations and speakers (available in Annex I and also on the UNDP-GEF website (<http://www.icpdr.org/undp-drp/>)).

2.1 Session 1: Setting the scene

Chair: Ivan Zavadsky

This introductory session served to present the objectives of the workshop as well as the main issues of the identification and designation process of HMWB and AWB according to the EU Guidance Document to the participants of the workshop. Specific attention and explanation was given on two steps of the process:

- **Step 2** which concerns the differentiation of artificial water bodies (AWB) and HMWB. According to the narrow definition of AWB in the CIS Guidance Document, an AWB is defined as a surface water body which has been created in a location where no significant surface water existed before and which has not been created by the direct physical alteration of an existing water body or movement or realignment of an existing water body.

AWB: Examples of AWB include canals constructed for navigation, drainage channels for irrigation, man-made ponds and dug ponds, harbours and docks, constructed dredging pools, gravel pits, surface mining lakes, storage reservoir for peak demand hydropower production or waters that are directed to the reservoir via diversions, and water bodies created by ancient human activities.

Not AWB: A water body that has changed category as a result of physical modifications is not an AWB, it is considered to be a HMWB (e.g. creation of a reservoir due to the damming of a river). Water bodies that have been moved or realigned, for example a realigned river going through a newly developed channel on previously dry land are HMWB and not AWB.

In the relevant discussions in the Danube Basin, it was concluded that the narrow definition of AWB should be applied. However, if countries use other criteria for the definition of AWB, their approaches should be well-grounded and justified in their national reports to ensure transparency.

- **Step 6** which concerns the substantial change in character of water bodies due to physical alterations. According to the EU Guidance Document on HMWB, a “substantial change in character” is the pre-condition for HMWB provisional identification and it should be widespread, permanent and affecting both hydrological and morphological characteristics.

To prepare the ground for subsequent discussions on the hydromorphological status of the Danube River, relevant historical and current information and data on the hydromorphology of the Danube were presented.

2.2 Session 2: Until 2004: Progress on HMWB identification

Chairs: Ulrich Irmer, Petru Serban

Hydromorphological Conditions

In this session, the results of recent work completed for the UNDP-GEF Danube Regional Project on hydromorphological drivers, pressures and impacts along the Danube River were presented. This is part of a recently completed report (12/2003) on Activity 1.1.2 “Adapting and implementing common approaches and methodologies for stress and impact analysis with particular attention to hydromorphological conditions”.⁴ The stress and impact analysis for hydromorphological conditions is relevant to steps 4 and 5 of the HMWB provisional identification process.

Three countries (A, D, RO) have already defined threshold values for assessing potentially significant pressures and impacts of hydromorphological changes. The three approaches, although different in some aspects, are rather similar. At the workshop, the three approaches as well as an approach developed by the consultants within the specific UNDP-GEF activity were discussed in more detail:

- A: criteria for defining significant pressures and criteria for risk assessment (impact) (steps 4 and 5 of the HMWB provisional identification),
- D: criteria for selected parameters (step 4 of the HMWB provisional identification),

⁴ Sommerhäuser M., Robert S., Birk S., Hering D., Moog O., Stubauer I. and T. Ofenböck (2003), Activity 1.1.2 “Adapting and implementing common approaches and methodologies for stress and impact analysis with particular attention to hydromorphological conditions”, Activity 1.1.6 “Developing the typology of surface waters and defining the relevant reference conditions” and Activity 1.1.7 “Implementing ecological status assessment in line with requirements of EU Water Framework Directive using specific bio-indicators”, UNDP-GEF Regional Danube Project, December 2003.

This is a Draft Report, not yet available for download on the UNDP-GEF website.

- RO: criteria for risk assessment (steps 5 of the HMWB provisional identification),
- UNDP-GEF consultants: criteria for risk assessment (steps 4 and 5 of the HMWB provisional identification).

Other issues related to the pressures and impacts assessment and data delivery for the roof report were also discussed. These issues do not serve as a direct input to the HMWB/AWB chapter of the roof report, but they are here presented as important conclusions of the HMWB workshop.

Namely, it was concluded that an agreement is needed on some relevant aspects of the pressures and impacts assessment (linked to hydromorphological changes). According to the discussions at the HMWB workshop, the existing map of hydraulic structures should be checked and reviewed by the countries. Relevant issues from the discussions are the following:

- The plans of the Trans-European networks as well as the range of backwaters could be included in the chapter on the estimation of the risk of failure to reach the objectives.
- It should be discussed whether the criteria used for the hydraulic structures map are appropriate for the needs of the roof report.
- Additional information is needed on rivers of the Danube River Basin District (DRBD) overview map that are not on the map on hydraulic structures of the Danube Pollution Reduction Programme.

National approaches on the identification of HMWB in the Danube Basin

Speakers from the individual Basin countries gave presentations on the experience made with the HMWB provisional identification in the Danube Basin so far. Relevant issues in this session were:

- Progress made with HMWB provisional identification so far in the Danube countries,
- Specific difficulties encountered in the process,
- Experiences made with the use of the EU CIS Guidance on HMWB,
- Use of any specific approaches for the HMWB provisional identification process.

Six main presentations included information on specific case study and pilot areas for the provisional identification of HMWB as presented in the workshop agenda (Germany (2 presentations), Austria, Romania, Slovak Republic and Serbia-Montenegro).

More presentations were given on a round table of the following countries: Croatia, Hungary, Slovenia, Bulgaria, Czech Republic (written message) and Moldova.

The discussions following the national presentations showed that:

- The Basin countries have made different progress with the steps of the HMWB provisional identification mainly concerning water body identification and scaling, risk assessment and decision on HMWB provisional identification.
- Problems were relevant to data (especially biological) and financial resources.
- Some countries are following the EU Guidance Document approach.
- There are differences in the approaches used by the Basin countries. Differences exist even between Austria and Germany (e.g. Austria already uses biological assessment), and between the two federal states of Germany in the Danube Basin (Bavaria and Baden-Württemberg).

Lessons from other European river basins on the identification of HMWB

Two cases for HMWB provisional identification were presented from other European river basins: one from the Rhine Basin and one from the Ruhr Basin. The presentation on the Rhine Basin also included the results of a workshop on HMWB in the Rhine Basin (3 April 2003, Bonn/Germany), which led to an agreement of the Rhine Basin countries on some main issues of the HMWB provisional identification. The presentation on the Ruhr Basin focused on issues related to water supply and urbanisation.

Discussion on criteria for HMWB provisional identification in the context of the Roof Report

It was again made explicit that given the international character of the Danube River Basin, the 2004/2005 report to the European Commission consists of two parts:

- Part A consists of a roof report with information of basin-wide importance. The roof report and the DRB overview map will include rivers with catchments > 4.000 km², lakes with an area >100 km² as well as the main canals.
- Part B of the 2004/2005 report consists of the national reports.

The initial discussions on specific criteria for provisional identification of HMWB showed that Basin countries (even federal States in Germany) that already use specific approaches, e.g. for risk assessment like Austria, Germany and Romania, will not change them for the purpose of the roof report. However, it was concluded that Basin countries, which have not developed their own approaches yet, could consider to apply approaches of other countries which seem pragmatic for their own situation (e.g. the approach of Romania) or the UNDP-GEF consultants approach on "assessment of significant hydromorphological changes". Such elaborate approaches and methodologies should be applied and explained in the national reports (part B of the 2004/5 report) but they are not relevant for the roof report.

Due to the differences in national approaches and the tight time-schedule for data delivery on HMWB for the roof report, it was concluded that a pragmatic approach on choosing HMWB to be included in the roof report is needed. The discussions of this session led to the proposed criteria to select HMWB and AWB for the roof report. These criteria were also discussed and agreed on in the final session of the workshop (see session 4).

2.3 Session 3: Beyond 2004: Designation of HMWB

Chair: Wenke Hansen

This session dealt with issues of the designation of HMWB and AWB which follows the provisional identification, and therefore is required after 2004. The designation tests were reviewed and some practical examples for designation decisions were presented drawing examples from selected uses (urban areas, navigation, flood protection). Additionally, it was clarified in which stages of the HMWB designation process economics are relevant. It was mainly emphasised that the designation procedure and the economic assessment methods must be proportionate to the circumstances and pragmatic. Economic assessment methods for HMWB should also be considered in combination with the set of measures for the river basin management plans to avoid duplication of work. Therefore, it is important to start considering HMWB designation and the related issues, which are required by the end of 2008, as soon as possible after 2004.

2.4 Session 4: Conclusions on HMWB in the Roof Report

Chair: Friedrich Barth

2.4.1 CHOOSING HMWB AND AWB FOR THE ROOF REPORT

The roof report deals with the following surface water bodies (see also the Danube River Basin District (DRBD) overview map):

- the Danube River,
- all rivers with a catchment size of at least 4 000 km²,
- all lakes with an area of at least 100 km²,
- the main canals (which have already been selected).

The AWB to be included in the roof report have already been selected and these are the:

- Danube-Tisza-Danube Canal System,
- Danube-Black Sea Canal,
- Rhine-Main-Danube Canal.

Four (4) criteria were selected for choosing HMWB for the roof report. The selection of the four criteria were based on the technical discussions during the workshop on the individual steps of the HMWB provisional identification process. The four criteria allow all DRB countries to deliver information on their most important HMWBs, even though they have not finalised their HMWB provisional identification process or identified their water bodies.

The four criteria are the following:

1. Size of water stretches should be > 50 km (a minimum of 70% of the stretch should show significant physical alterations and hydromorphological impacts, i.e. it should be HMWB), and
2. One or more of the following main uses should be present: hydropower, navigation, flood protection, urbanisation, and
3. One or more of the following significant physical alterations (pressures) should be present: dams/weirs, channelisation/straightening, bank reinforcement/fixation, and
4. By expert judgement, it must have been concluded that the stretch is at risk of failing to achieve the Good Ecological Status (GES). For the expert judgement, the following criteria should be utilised:
 - Not passable obstacles (weirs/dams) for migratory species,
 - change of water category (e.g. change of river to dammed reservoir),
 - impoundment with significant reduction of water flow,
 - disruption of lateral connectivity,
 - and others (needs to be specified).

These expert judgements allow to choose the very obvious provisional HMWB stretches.

Ad 1) Regarding the first criterion on size, it is noted that such a stretch may also include more than one physical alteration with a significant impact on hydromorphology. For example, a chain of consequent hydropower plants or weirs over a stretch of more than 50 km may also come into question.

Ad 3) Regarding the third criterion, it will be up to the individual countries to assess if these physical alterations are significant or not, based on their national approaches and as reported in their national reports (part B of the 2004/5 report).

If all the above four criteria (1-4) are met, then the chosen stretches are:

- provisionally identified HMWBs,

- “of basin wide importance”, and therefore
- relevant for the HMWB/AWB chapter of the roof report.

The discussions at the workshop showed that using this pragmatic approach (criteria 1-4), the most important HMWB stretches in the Danube Basin would be included in the roof report.

2.4.2 CONTENT OF THE HMWB/AWB CHAPTER OF THE ROOF REPORT AND INFORMATION DELIVERY

The HMWB/AWB chapter of the roof report will have a length of 5-10 pages. The participants of the workshop agreed that the content of HMWB/AWB in the roof report (Part A of the 2004/5 report) should consist of the following elements:

1. A map showing the position of the selected HMWB stretches (which meet the four criteria, see above), and the AWB (main canals of the DRBD overview map),
2. An overview table with information on the HMWB (which meet the four criteria, see above) and AWB, and
3. Some selected examples for which more information will be provided (1/2 - 1 page per case).

Ecologic will prepare two templates for data delivery. The first template will request information for the map and the overview table (elements 1 & 2). The second template will request information on the selected examples (element 3).

Template 1

Ad 1) For the preparation of the map and table on HMWB, the following geographical information is needed (the AWB of basin-wide importance have already been selected and are in the DRBD overview map):

- co-ordinates (start point - end point) - GIS data,
- river km (start point - end point),
- name of river (Danube or main tributary),
- description of location (e.g. close settlements),
- OR other maps in digital format (incl. state borders and main rivers).

Ad 2) For the preparation of the overview table on HMWB of the roof report, additionally to the data needed for preparing the map, the following information is needed (for each HMWB reported):

- Size (river length/area of lakes),
- Main uses: hydropower, navigation, flood protection, urbanisation,
- Significant physical alterations: dams/weirs, channelisation/straightening, bank reinforcement/fixation,
- Reasons for water at risk to reach GES (and some lines of description on expert judgement):
 - Not passable obstacles (weirs/dams) for migratory species,
 - change of water category (e.g. change of river to dammed reservoir),
 - impoundment with significant reduction of water flow,

- disruption of lateral connectivity,
- and others (needs to be specified).

For the preparation of the overview table on AWB of the roof report, the following information is needed (for each AWB reported):

- Size (river length/area of lakes),
- Main uses: hydropower, navigation, flood protection, urbanisation.

Template 2

Ad 3) Regarding the selected examples of HMWB and AWB, which will be described in the roof report, the workshop participants agreed that they should be the following:

- Iron Gate I and II (RO, CS),
- Gabčíkovo hydropower plant (SK, HU),
- upper Danube river stretch (D, A),
- Danube-Tisza-Danube Canal System (CS), which is an AWB,
- Rhine-Main-Danube Canal (D), which is an AWB,
- Danube-Black Sea Canal (RO), which is an AWB.

First suggestions for the information needed on these six selected examples are the following:

- Description of area and uses (geography, socio-economic conditions) (for both HMWB and AWB),
- Characteristics of the physical alterations and the significant hydromorphological changes (for HMWB) / Description of location before AWB was created, history of the creation and information on the construction of hydraulic structures (for AWB),
- Impacts of the significant physical alterations (e.g. long-range effects, effects on important migratory species) (for HMWB) / Impacts on biological, physico-chemical, hydromorphological status (with indication of the evaluation against the environmental objective/Good Ecological Potential, if already defined) (for AWB).

Typology and reference conditions for HMWB/AWB

It should be discussed whether and to what extent information and data on the typology and reference conditions should be additionally collected for the HMWB/AWB chapter of the roof report. Typology is not an issue specific to HMWB/AWB and relevant information will be collected in the context of the chapter on surface water body identification of the roof report. With regard to reference conditions, according to the EU Guidance on HMWB, provisional HMWB are assessed against Good Ecological Status (GES) for the 2004 requirements. Therefore relevant information will be collected in the context of the chapter on reference conditions for surface water bodies of the roof report. However, for AWB it should be assessed whether they risk achieving Good Ecological Potential (GEP) or not by 2004. However, as pointed out in the EU Guidance on HMWB the definition of GEP and Maximum Ecological Potential (MEP) by 2004 entails many difficulties. Therefore, the feasibility of delivering information on the reference condition for MEP for AWB by 31 March 2004 should be considered.

Transboundary cases

Regarding transboundary cases which are chosen for inclusion in the roof report, it is the responsibility of the countries sharing the respective stretches to start bi- or multilateral harmonisation straight away. There should not be inconsistent information delivered in the templates by different countries or between the roof report and the national reports. For the roof report, agreed information should be delivered in both templates (template 1 for overview table & map and template 2 for the selected examples).

Timetable

The timetable for preparing the HMWB/AWB chapter for the roof report in 2004 is as follows:

- Workshop to agree on the content of the roof report 9/10 February
- Workshop results presented to and decided upon by the RBM EG 26 February
- Circulation of 2 templates for data collection 27 February
- Delivery of (bilaterally harmonised) data by countries 31 March
- HMWB/AWB chapter by Ecologic 7 May
- ICPDR Standing WG meeting 16/17 September
- ICPDR Ordinary Meeting and Ministerial meeting 13/14 December

Annex I: Agenda

Identification and designation of heavily modified water bodies (HMWB) in the Danube River Basin

9-10 February 2004

Parc Hotel, 3-5 Poligrafiei Ave., 1st District, Bucharest, Romania

Agenda

9 February 2004	
8:45	<i>Registration and Coffee</i>
9.00	Welcome <i>Florin Stadiu</i> , State Secretary in Ministry of Agriculture, Forests, Waters and the Environment
9.10	Opening <i>Ivan Zavadsky</i> , UNDP-GEF Danube Regional Project
▶ Session 1: Setting the scene Chair: <i>Ivan Zavadsky</i>	
9:20	Objectives of the workshop <i>Wenke Hansen</i> , Ecologic
9:35	The EU CIS Guidance on HMWB <i>Ulrich Irmer</i> , Federal Environment Agency, Germany
9:55	The Danube River: Europe's largest 'near natural' or 'heavily modified' river? <i>Ilse Stubauer</i> , University of Natural Resources and Applied Life Sciences, Vienna
10:10	<i>Coffee Break</i>
▶ Session 2: Until 2004: Progress on HMWB identification Chair: <i>Ulrich Irmer</i>	
▶ HYDROMORPHOLOGICAL CONDITIONS	
10:35	First 'Im-Pressions': Hydromorphological Drivers, Pressures and Impacts along the River Danube <i>Otto Moog and Ilse Stubauer</i> , University of Natural Resources and Applied Life Sciences, Vienna
▶ NATIONAL APPROACHES ON THE IDENTIFICATION OF HMWB IN THE DANUBE BASIN	
10:55	Germany: cases from Bavaria/Altmühl-Paar and Baden-Württemberg <i>Joachim Schütter</i> , Bavarian Ministry of the Environment and <i>Klaus Kern</i> , River Consult
11:15	Austria: Danube between Greifenstein and Vienna <i>Robert Konecny</i> , Federal Environment Agency
11:30	Romania: Iron Gate and other cases <i>Petru Serban</i> , National Administration Romanian Waters

11:45	Slovak Republic: Gabčíkovo hydropower plant and the Morava River <i>Pavel Hucko, Water Research Institute</i>
12:00	Serbia and Montenegro: Iron Gate <i>Marina Babic-Mladenovic, Jaroslav Cerni Institute for the Development of Water Resources</i>
12:15	Round table: Short reports (5-10min) on the status of HMWB identification in the Danube Basin: Croatia, Hungary, Czech Republic, Slovenia, Bulgaria, Moldova, Ukraine, Bosnia-Herzegovina
13:15	<i>Lunch</i>
<i>Chair: Petru Serban</i>	
▶ LESSONS FROM OTHER EUROPEAN RIVER BASINS ON THE IDENTIFICATION OF HMWB	
14:30	Experience from the Rhine <i>Jochen Fischer, Regional Council Gießen, Germany</i>
14:45	Experience from the Ruhr basin <i>Petra Podraza, University of Essen, Germany</i>
15:00	Questions - Discussion
15:10	<i>Coffee Break</i>
<i>Chairs: Petru Serban and Ulrich Irmer</i>	
15:40	Two parallel discussion groups on criteria for HMWB identification with a focus on transboundary issues
17:10	Reports from the discussion groups and closing discussion
18:00	<i>End of the 1st workshop day</i>

10 February 2004	
▶ Session 3: Beyond 2004: Designation of HMWB <i>Chair: Wenke Hansen</i>	
9:00	Short summary from previous day <i>Wenke Hansen, Ecologic</i>
9:10	Criteria for designating HMWB <i>Klaus Kern, River Consult</i>
9:30	Economic perspective of HMWB designation <i>Eduard Interwies, Ecologic</i>
9:50	Discussion / first ideas on the issues at stake for designating HMWB in the Danube Basin
10:20	<i>Coffee break</i>

Session 4: Next steps with focus on 2004 requirements

Chair: *Friedrich Barth*

10:50

Closing discussion on:

Content and main issues for the roof report

Common further procedure for the input of the basin countries to the roof report

13:00

Lunch

14:15

End of the workshop

Annex II: List of participants



Workshop on HMWB
February 9th to 10th
Bucharest, ROMANIA

	Name	Country	Address/ Organization	Contacts
1	Klaus KERN	Germany	River Consult Am Rennbuckel 17 D – 76185 Karlsruhe	Tel: + 49 721 971 51 – 27 Fax: + 49 721 971 51 – 29 e-mail: kern@river-consult.de
2	Robert KONECNY	Austria	Umweltbundesamt Spittelauer Lände 5 1090 Wien	Tel: + 43 1 313 04 - 3581 Fax: + 43 1 313 03 - 3500 e-mail: robert.konecny@umweltbundesamt.at
3	Ilse STUBAUER	Austria	University of Natural Resources and Applied Life Sciences, Inn Hydrobiology and Aquatic Ecosystem Management Max – Emanuel Str. 7, 1180 Wien	Tel: + 43 1 47654 - 5219 Fax: + 43 1 47654 - 5217 e-mail: ilse.stubauer@boku.ac.at web: www.boku.ac.at/hfa
4	Pavel HUCKO	Slovak Republic	Nabr. arm. gen. L. Svobodu 5 812 49 Bratislava 1 Slovak Republic	Tel: + 421 2 593 43 424 + 421 2 593 43 474 Fax: +421 2 544 11 941 e-mail: Pavel_Hucko@vuvh.sk
5	Boris MINARIK	Slovakia	Slovak Water Management Enterprise Vrakunska 29 825 63 Bratsilva 211	Tel: + 421 2 4524 9414 Fax: + 421 2 4524 8946 e-mail: minarik@vuzh.sk

	Name	Country	Address/ Organization	Contacts
6	Alan CIBILIC	Croatia	Croatian Water Ulica Grada Vukovara 220 (Institute of Water Management)	Tel: + 385 1 6307 321 Fax: + 385 1 6307 686 e-mail: acibilic@voda.hr
7	Neven KUSPILIC	Croatia	Faculty of Civil Eng. Kaciceva 26 10000 Zagreb	Tel: + 385 1 4639 242 Fax: + 385 1 46 39 260 e-mail: kuspa@grad.hr
8	Pannonhalmi MIKLOS	Hungary	9021 Györ Árpád ut 28 - 32	Tel: + 36 96 – 500 – 045 (11 – 160) Fax: + 36 96 – 315 – 342 e-mail: pannonhalmi.miklos@eduvizig.hu
9	David SZILVIA	Hungary	National Water Authority 1012 Budapest Márvány u. 1/c	Tel: + 36 1 225 44 63 Fax: e-mail: david.szilvia@ovf.hu
10	Ales BIZJAK	Slovenia	Institute for Water of the Rep. of Slovenia Hajdrihova 28 c 1000 Ljubljana	Tel: + 386 1 47 75 333 Fax: + 386 1 42 64 162 e-mail: ales.bizjak@guest.arnes.si
11	Petra PODRAZA	Germany	Universität Duisburg - Essen Institut f. Ökologie Abt. Hydorbiologie 45117 Essen	Tel: + 49 0201/ 183 - 3868 Fax + 49 0201/ 183 - 4583 e-mail: petra.podraza@uni-essen.de
12	Joachim SCHÜTTER	Germany	Bayrisches Staatsministerium f. Umwelt, Gesundheit u. Verbraucherschutz Rosenkavalierplatz 2, 81925 München	Tel: + 49 089 92 14 - 4307 Fax: + 49 089 92 14 - 4302 e-mail: Joachim.schuetter@stmugv.bayern.de

	Name	Country	Address/ Organization	Contacts
13	Petruta MOISI	Romania	Basarabie No.2 800201 Galati Romania (NGO)	Tel: + 421 2 654 561 13 Fax: + 421 2 657 300 50 e-mail: eco@cceg.ro , cceg@home.ro
14	Jochen FISCHER	Germany	Regierungspräsidium Giessen Abt. Staatl. Umweltamt Wetzlar Schanzenfeldstr. 10/12 35578 Wetzlar	Tel: + 49 6441 2107 - 257 Fax: + 49 6441 2107 - 127 e-mail: j.fischer@rpu-wz.hessen.de
15	Wenke HANSEN	Germany	Ecologic Institute for Int. & European Environmental Policy Pfalzburger Str. 43 + 44 10717 Berlin, Germany	Tel: + 49 30 86 88 00 Fax: + 49 30 86 88 0 - 100 e-mail: Hansen@ecologic.de
16	Eduard INTERWIES	Germany	Ecologic Institute for Int. & European Environmental Policy Pfalzburger Str. 43 + 44 10717 Berlin, Germany	Tel: + 49 30 86 88 00 Fax: + 49 30 86 88 0 - 100 e-mail: interwies@ecologic.de
17	Eleftheria KAMPA	Germany	Ecologic, Institute for Int. & European Environmental Policy, Pfalzburger Str. 43+44 10717 Berlin, Germany	Tel: + 49 30 86 88 00 Fax: + 49 30 86 88 0 - 100 e-mail: kampa@ecologic.de web: www.ecologic.de
18	Ulrich IRMER	Germany		Tel: Fax: e-mail: ulrich.irmer@uba.de

	Name	Country	Address/ Organization	Contacts
19	Friedrich BARTH	Germany	IFOK GmbH Institut f. Organisationskommunikation Berliner Ring 89 D - 64625 Bensheim	Tel: + 49 0 6251 – 84 16 71 Fax: + 49 0 6251 – 84 16 16 e-mail: barth@ifok.de web: www.ifok.de
20	Liviu N. POPESCU	Romania	ICIM Research & Engineering Institute for Environment Protection Spl. Independentei 294 Sec. 6, 060031 Bucharest 7	Tel: + 40 21 221 9226 direct, 5758 Fax: 40 21 221 8564 or. 3805 e-mail: lipopesc@icim.ro cell phone: + 40 745 433 135
21	Petru SERBAN	Romania	6 Str. Edgar Quinet 70106 Bucharest	Tel: + 40 21 3122 174 – 31 51 301 Fax: + 40 21 3122 174 e-mail: petru.serban@rowater.ro
22	Daniela RADULESCU	Romania	A. N. “Apele Romane” Edgar Quinet 6 Sect. 1, Cod 010018 Bucharest	Tel: + 40 1 315 55 35 Fax: + 40 1 315 55 35 e-mail: daniela.radulescu@rowater.ro
23	Ruslan MELIAN	Moldova	Acvaproject Chisinau, str. Aleco Ruso 1	Tel: + 373 22 44 97 93 Fax: e-mail: rmelian@acva.md
24	Diana CELAC	Moldova	Ministry of Ecology Constructions and Territorial Development 9 Cosmonautilor St, MD-2005 Chisinau	Tel: + 373 22 204 577 Fax: +373 22 22 07 48 e-mail: celacd@mediu.moldova.md
25	Marina BABIC – MLADENOVIC	Serbia & Montenegro	Jaroslava Cernog Str., 80 Belgrade	Tel: +381 11 39 064 77 Fax: + 381 11 39 079 55 e-mail: jcerni05@eunet.yu jcerni05@infosky.net

	Name	Country	Address/ Organization	Contacts
26	Dragana NINKOVIC	Serbia & Montenegro	Jaroslava Cernog Str., 80 Belgrade	Tel: +381 11 39 064 77 Fax: + 381 11 39 079 55 e-mail: jcerni05@eunet.yu jcerni05@infosky.net
27	Milos JANAC	Serbia & Montenegro	Jaroslava Cernog Str., 80 Belgrade	Tel: : +381 11 39 064 77 Fax: + 381 11 39 079 55 e-mail: jcerni05@eunet.yu jcerni05@infosky.net
28	Mihajlo SRENTENOVIC	Serbia & Montenegro	Djeroap Authority Pop Stojanova 2a Belgrade	Tel: + 381 11 2404 492 Fax: + 380 98 02 e-mail: mesovita_k@djerdap.co.yu
29	Boryana GEORGIEVA	Bulgaria	Ministry of Environment and Water 22, Maria Luiza blvd. Sofia 1000, Bulgaria	Tel: + 359 2 940 66 44 Fax: + 359 2 980 96 41 e-mail: bgeorgieva@moew.government.bg
30	Ivan ZAVADSKY	UNDP/GEF	Project Manager Vienna International Centre, DO 419 PO Box 500A-1400 Vienna	Tel: + 43 1 26060 – 5767 Fax: + 43 1 26060 – 5837 email: ivan.zavadsky@unvienna.org
31	Sylvia KOCH	UNDP/GEF	Project Assistant Vienna International Centre, DO 439 PO Box 500, A-1400 Vienna	Tel: +43 1 – 26060 - 5767 + 43 1 – 26060 – 5837 email: Sylvia.koch@unvienna.at
32	Ursula SCHMEDTJE	ICPDR	Technical Expert Vienna International Centre, DO 417 PO Box 500, A-1400 Vienna	Tel: +43 1 – 26060 – 5333 + 43 1 – 26060 – email: Ursula.schmedtje@unvienna.org
33	Mihaela POPOVICI	ICPDR	Technical Expert Vienna International Centre, DO 416 PO Box 500, A-1400 Vienna	Tel: +43 1 – 26060 – 5333 + 43 1 – 26060 – email: Michaela.popovici@unvienna.org

	Name	Country	Address/ Organization	Contacts
34	Florin STADIU	Romania	Ministry of Agriculture Forest Water and Environment – Secreatry of State 12, Libertati, Sec. 5, Bucharest	Tel: + 40 21 410 2407 Fax: + 40 21 335 6057 e-mail: stadiu@mappm.ro
35	Graziello JULA	Romania	A.N. “Apele” Romania ur 6 Sector 1 Bucharest	Tel: + 40 1 315 55 35 - 143 Fax: + 40 1 315 55 35 e-mail: graziello.julo@rowater.ro
36	Gabriel CHIRIAC	Romania	ICIM Bucharest Spl. Independentei 294 Sect. 6, Bucaresti 060031	Tel: + 402 1 221 57 58 - 204 Fax: + 402 1 220 38 05 e-mail: gchiriac@icim.ro
37	Elisabeta CSERWID	Romania	A.N. Apele Romania Str. Edgar Quinet U 6 sec.	Tel: + 402 1 315 55 35 – 146 Fax: e-mail: elisabeta.cserwid@rowater.ro
38	Catalin NAGY	Romania	Benat Water Branch Mihai Viteazu Bvl. No. 32 30222 Timisoara	Tel: + 407 447 903 36 Fax: + 402 564 91 798 e-mail: catalin.nagy@dab.rowater.ro
39	Daniel B. NAPTEGI	Romania	Water Branch Str. Ivan Bugdan 35 Oradea	Tel: + 259 442 033 Fax: e-mail:
40	Otilia ANTONARU	Romania	Water Directorate Dobrogea Litoral Str. Mirecea cel Batran Nr. 127, Constanta	Tel: + 40 241 67 30 36 - 434 Fax: + 40 241 67 30 25 Mob: + 40 744 98 90 59 e-mail: otilia.antonaru@dadl.rowater.ro
41	Anca SAVIN	Romania	Prut Directorate Str. Th. Vascautearum Nr. 10 Jasi	Tel: + 400 232 215 499 Fax: e-mail: anca.savin@dap.rowater.ro

	Name	Country	Address/ Organization	Contacts
42	Manuela TOMA	Romania	Siret Water Directorate Str. Cuza Voda nr. 1 Bacau	Tel: + 40 234 581 420 Fax: e-mail: manuela.toma@das.rowater.ro
43	Christina BAYER	Romania	Somes Tisa Waters Directorate Ser. Vânătorulin 11	Tel: + 40 264 433 028 Fax: e-mail: idue@dast.rotwater.ro
44	Vasile BOJAN	Romania	Olt Directorate Str. Remus Bellu, 6 Vâlea	Tel: + 40 250 739 881 Fax: e-mail: vasile.bojan@dao.rowater.ro
45	Florin MOLDOVAN	Romania	Mures Directorate Str. K. Samuel nr. 33, Tg. Mures	Tel: + 40 265 264 859 Fax: + 40 265 264 290 e-mail: wfd-tgmures@xnet.ro
46	Vasilescu MIRCEA	Romania	Arges Vedea Directorate Calea Campulung Nr. 6-8, Pitesti.	Tel: +40 248 223 697 Fax: + 40 248 211 549 e-mail: mircea.vasilescu@daav.rowater.ro
47	Daniela MARCU	Romania	Jiu Water Directorate Str. N.Romanexcu Nr. 56 Craiova	Tel: + 40 251 426 655 Fax: e-mail: marcu.daniela@daj.rowater.ro
48	Maria MARINESCU	Romania	Buzau Jalneta Directorate Str. Bucegi ur. Zobis	Tel: Fax: e-mail: ueirela.marinescu@daib.rowater.ro