



Convention on the Protection and Use of Transboundary Watercourses and International Lakes

Working Group on Integrated Water Resources Management

Third meeting
Rome, 22–24 October 2008
Item 9 of the provisional agenda

Informal paper 4

THE SECOND ASSESSMENT OF TRANSBOUNDARY RIVERS, LAKES AND GROUNDWATERS IN THE UNECE REGION

Note by the secretariat

- The Assessment was widely recognized as one of the major products of the Convention and certainly a long-term priority which provides a very strong basis for all other Convention's activities.
- Due to the integrative nature of the Assessment, the Working Group on Monitoring and Assessment (WGMA) agreed on the need to carry out its preparation in close cooperation with the Working Group on Integrated Water Resource Management (WGIWRM) through (a) activities carried out under the framework of that Working Group and (b) mobilizing the relevant experts.
- The Second Assessment is innovative from the content point of view. Thus, the WGIWRM is requested to provide its comments on the Assessment's draft outline either at the meeting or in writing after it, by 10 November 2008.
- WGMA agreed that the second Assessment should be submitted to the next "Environment for Europe" Conference as an element of its formal agenda. Thus, the plans on the use of the Assessment are ambitious, including from the political point of view; it is extremely important to ensure a timely start of the activities and predictable funding so to secure its success.

This document aims to facilitate discussion by WGIWRM regarding preparation of the second Assessment. Part I is based on the concept note prepared by for the ninth meeting of WGMA held in Geneva on 17–18 June 2008 (ECE/MP.WAT/WG.2/2008/3) and the decisions taken by WGMA at this meeting (ECE/MP.WAT/WG.2/2008/2). Part II contains the proposed draft outline of the second Assessment.

I. LESSONS LEARNED AND FUTURE PLANS

Introduction

1. Parties to the Convention decided at their third meeting (Madrid, 26-28 November 2003) to prepare periodic assessments on the pressures, status and trends of transboundary surface waters and groundwaters in the region, in order to be able to assess compliance with the obligations of the Convention and to evaluate progress achieved.
2. The first Assessment of Transboundary Rivers, Lakes and Groundwaters was prepared for the Sixth Ministerial Conference “Environment for Europe” (Belgrade, 10–12 October 2007) by the Convention’s Working Group on Monitoring and Assessment (WGMA). The Belgrade Ministerial Conference expressed its appreciation regarding the preparation of the first Assessment and invited the Meeting of the Parties to the Convention to prepare the second Assessment of transboundary waters for the next Ministerial Conference tentatively scheduled to take place in Kazakhstan in 2011.
3. The preparation of the first Assessment was led by Finland with strong support from Slovakia, the United Kingdom, Germany, the United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Environment Programme (UNEP) and the Organization for Security and Co-operation in Europe (OSCE). It has been a major undertaking by UNECE countries - both Parties and non-Parties - and the secretariat of the Convention. More than 150 experts took part in its preparation. The Assessment includes 140 transboundary rivers (most of them with a basin area over 1,000 km²) and 30 transboundary lakes in the European and Asian parts of the UNECE region, as well as 70 transboundary aquifers in South-Eastern Europe (SEE), the Caucasus and Central Asia. The project in general devoted more attention to the countries of Eastern Europe, Caucasus and Central Asia (EECCA) and SEE, which face the greatest challenges and for which information had never been presented in a systematic, comprehensive way.
4. The first Assessment describes the hydrological regime of these water bodies, pressure factors in their basins, their status and transboundary impact, and trends, future developments and envisaged management measures. Water sharing among riparian countries, increasing groundwater abstraction for agricultural purposes and drinking water supply, pollution from diffuse sources (e.g. agriculture, urban areas) as well as point sources (e.g. municipal sewage treatment and aging industrial installations), and the effects of climate change on water resources are among the many issues documented.
5. The Assessment was valued as a good starting point that proved to have **a number of strength**, namely: a broad geographical scope allows for learning about a great number of river basins; summarization covers a wide spectrum of issues; the presentation of new material on emerging subjects that was not easily available. Furthermore, the publication’s **well-designed layout** has made it more accessible to different target groups and encouraged its wide use.
6. The ninth meeting of WGMA evaluated the lessons learned from the preparation of the first Assessment and started the planning for the second edition. In particular, the WGMA agreed that IWRM will be a major focus of the second Assessment and that cooperation with WGIWRM will be needed. .

A. Why do we need the Second Assessment?

7. The first Assessment should be seen as a **pioneering work initiating a long-term process**. The future assessments should provide a periodic review, continuously updated, designed to give an authoritative picture of the state of the transboundary water resources in the UNECE region and benchmark progress achieved. In addition, a thematic focus, for example on impact of climate change, could highlight emerging issues and attract attention.

8. Thus, the Assessments will keep the state of shared water resources under scrutiny and aim to bring positive changes to their management. They will promote informed decision-making on the management of shared water resources, provide the basis for continuous bilateral and multilateral cooperation under the Water Convention, and support all actors involved at the national, transboundary and regional levels. They should serve as a tool to identify trends and needs related to protection and sustainable management of transboundary waters and their finding should lay the ground for strategic directions for work under the Convention and be taken into consideration by the Meetings of the Parties and various political fora, including the “Environment for Europe” Conferences. They will also be useful source of information for investment by prospective donors. The assessments may in the future become the UNECE regional contribution to the World Water Assessment Report.

B. Lessons learned from the preparation of the first Assessment

9. As the first Assessment was finalized rather late, it was not possible to submit it as a part of the formal agenda for decision by the Ministers attending the Belgrade Ministerial Conference. This prevented the dedication of sufficient attention to the issue at this high political level. Thus, the Second Assessment should be developed with the view of **presenting its findings and/or derived recommendations to the Astana Conference in 2011**, as a part of the formal agenda.

10. Adequate support to **promotional work** on the Assessment, to reach different target groups on the one hand, and to strengthen ownership by countries on the other, should be made.

11. Ways and means for **cooperation with the European Environment Agency (EEA)** need to be explored (e.g. synergies with the preparation of the Assessment reports by EEA, collection of information in the EEA countries; preparation of assessments related to the EEA countries and use of data available in European Environment Information and Observation Network (EIONET) and the Water Information System for Europe (WISE).

12. Streamlining **work with other relevant processes** under the Convention (e.g. the survey on adaptation to climate change in water sector) as well as under other bodies (e.g. reporting on the implementation of the European Union Water Framework Directive (WFD); activities of the Ground Water Core Group under WFD, and relevant programmes of the World Meteorological Organization) should be considered in future planning.

13. **Experts from EU countries** should also participate actively in this exercise, as the national reports on the implementation of the EU Framework Directive could not serve as the only source of information (they do not include all type of information and not all of them are available in English).

14. Focal points should ensure that **national experts from other relevant thematic areas** take part in the work, when needed.

15. **Involvement of joint bodies** should also be strengthened.

16. To facilitate effective responses, **the questionnaires** that will be sent to countries **should contain already available information** (e.g. included in the first edition or collected from other sources), and countries should be asked to update and enrich it.

17. Furthermore, a number of **practical issues** should be taken into account for the future work:

- (a) The questionnaire alone did not prove to be an effective tool. Subregional working meetings served as an effective mean for the collection of data, its verification and its joint acceptance by the riparian countries, as well as for the promotion of the Convention;
- (b) Small payments for experts from EECCA and SEE countries would facilitate significantly the collection of data and their involvement in this activity;
- (c) Enormous time pressures and the lack of human and financial resources were observed during the preparation of the first Assessment. Therefore, sufficient time for the collection of data and for the drafting and revision of the text, as well as adequate human and financial resources, are prerequisites for the success of this activity. It was agreed that a staff member will be needed to manage the preparation of the Assessment. Finland is exploring the possibility for providing such staff member.

C. Objectives, Scope, Target group and Content of the second Assessment

18. Objectives

- Complete the information gaps and reflect any change since the first assessment
- Take stock of progress achieved in implementation of IWRM measures in the transboundary context, in particular related to transboundary agreements, institutional arrangements, policy, management, financing and involvement of stakeholders
- Identify main issues, hot spots, future risks, challenges and specific needs

19. Scope

Geographical scope: the second Assessment should cover the Asian and the European part of the ECE region. In addition, the emphasis will be given to the Central Asia sub-region. It was stressed that emphasis on Central Asia would help to facilitate subregional discussions on water issues between the Central Asian Governments. As far as possible, non-UNECE countries sharing waters with UNECE countries (e.g. Afghanistan, China and Islamic Republic of Iran) will be included in the Assessment.

Content-wise: In addition, to updates of information in the first Assessment, its main message will illustrate the progress achieved in implementation of integrated water resource management in the transboundary context, including existence of transboundary legal framework, joint bodies and their mandate, and joint monitoring programmes and related activities. Compared to the first assessment, more attention will be given to the issue of water

quantity. Surface and groundwaters will be considered in an integrated way. The assessment of groundwaters will include geological and hydrogeological components. Furthermore:

- the Assessment will have a more integrated nature and provide some insight on social and health aspects, as relevant
- emerging issues, like impact of climate change will be addressed in most relevant areas
- assessment of ecological status of several transboundary Ramsar sites will be presented.

20. Target group

The major target groups for the second Assessment will include decision makers, water experts and joint bodies. Therefore, it was agreed to prepare two products to serve the needs of the different actors: (a) an executive summary for decision makers; and (b) a more extensive report, similar to the first Assessment, for other readers.

D. Time frame and working arrangements

21. The proposed time frame for the preparation of the second Assessment is presented in table 1 below. It is a tentative proposal which will depend on the actual date when the devoted staff member will start working on the Assessment. The proposal takes into consideration the arrangements needed for effective collection of information, preparation of documents and meetings that should consider the draft Assessment at various stages of its preparation.

22. The work should be streamlined as much as possible with other relevant activities taking place under different frameworks (e.g. in Central Asia, in the “Environment for Europe” process) to ensure synergy between them and provide benefits to all partners. The challenge will be to benefit from their processes and outcomes, find the niche and, at the same time, promote the Assessment within these initiatives.

23. Various organizations expressed their views on cooperation for the second Assessment’s preparation.

24. EEA proposed the following as possible areas for cooperation:

(a) The next EEA State of the Environment and Outlook Report is due to be released in 2010. The report is expected to cover water resources, including aspects of water quality. The provisional outline of the report should be available in autumn 2008;

(b) EEA already has in Water Information System for Europe (WISE) and Waterbase (a database), and will receive through the reporting under the European Union (EU) Water Framework Directive, much relevant information on transboundary waters in the EU/EEA region;

(c) Furthermore, EEA plans to have its next pan-European report ready in the summer of 2010, in advance of the next “Environment for Europe” Conference.

25. WGMA confirmed that cooperation of EEA and UNECE on the second Assessment was very relevant. At the same time, it raised several issues of concern that should be considered. These included: (a) the availability in WISE and Waterbase of comprehensive

aggregated data and of the assessments themselves, which was a preferable option vis-à-vis raw data; and (b) the feasibility of extraction of transboundary-related data from overall data. The point was also made that EEA plans to introduce reporting based on a river basin approach only after 2010.

26. Taking the above into consideration, WGMA requested the close cooperation of UNECE and EEA in the planning and drafting of their respective assessment reports, so as to address the above issues and ensure coordination and efficiency in the two products' preparation. WGMA considered that this cooperation should not be limited by use of data by UNECE only, but that it should also be seen as a contribution to and promotion of the Assessment by EEA. The latter was particularly relevant, as the transboundary nature of the Assessment would be beneficial for work carried out by EEA. Furthermore, WGMA strongly recommended that the EEA pan-European report and the second Assessment should be submitted to the next "Environment for Europe" Conference as a single package of two complementary products.

27. International Water assessment Center (IWAC) will play a crucial role in the preparation of the second assessment which will be a major item in IWAC future workplan. IWAC contribution will need to be further specified but will in any case include assistance to the organization of subregional meetings and technical assistance in drafting the assessment.

28. Also the Global Water Partnership for Central and Eastern Europe (GWP-CEE) confirmed its support for the preparation of the Assessment, which could take the form of providing technical assistance to the organization of subregional meetings and recruiting experts for the preparation of the report. GWP-CEE could also contribute some case studies to be included into the report. UNECE was requested to contact the headquarters of GWP to make formal arrangements for this cooperation.

29. OSCE suggested using outcomes of the workshop held under the Capacity for Water Cooperation (CWC) Project (Almaty, Kazakhstan, 2007). OSCE also suggested that CWC could contribute to the organization of future subregional meetings for the second Assessment. It noted that the OSCE chairmanship by Kazakhstan in 2010 might facilitate this. OSCE also suggested making use of: (a) United Nations Development Programme work on integrated water resources management (IWRM) in Central Asia; (b) the assessment of the resources of the Caspian Sea and the Amu Darya River carried out under the Environment and Security (ENVSEC) Initiative; and (c) the relevant outcomes of the high-level conference, "Water Unites – New Prospects for Cooperation and Security in Central Asia" (Berlin, 2008).

30. UNESCO stressed that water managers from different levels should be engaged. It also made a number of practical offers to support the preparatory work, as follows:

(a) To make use of the UNESCO educational programme on groundwaters;

(b) To support subregional meetings, through covering experts' costs and in-kind contributions;

(c) To help with the analysis of transboundary ground and surface water in an integrated way, through its International Groundwater Resources Assessment Centre (IGRAC);

(d) To play a role in promoting the Assessment, including through its Course on Integrated Resource Management of Groundwater and by organizing various events.

31. The secretariat of the Ramsar Convention informed WGMA that it could contribute to the assessment of wetlands ecosystems. This assessment would cover ecological aspects, biodiversity and possibly some social aspects.

32. Furthermore, WGMA agreed that coordination will be needed between various assessments carried out under different frameworks (e.g. the EU Water Framework Directive, the Baltic Marine Environment Protection Commission (Helsinki Commission) and the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic). Spain stressed that the preparatory work should also benefit from activities of different task forces and working groups under the Convention and the Protocol on Water and Health. Italy reported that it will lead the EU Central Asia Strategy and, as water will be one of the issues under its umbrella, it could explore possible contribution to the Assessment from this initiative. Hungary suggested that reports on the monitoring under the joint bodies should be presented at the Working Group's meetings. Ukraine noted that the current TACIS¹ project on water governance, which involves Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, could be also be used for the Assessment.

33. WGMA established a steering group for the preparation of the second Assessment and proposed the following composition: Finland (Chair), Georgia, Germany, Kazakhstan, Switzerland, Ukraine, EEA, IWAC, GWP-CEE, UNESCO, OSCE and the Ramsar Convention secretariat. The steering group will be responsible for a number of tasks, including finalization of the outline and agreeing on work arrangements and funding. WGMA felt that one country from SEE should also be represented in the steering group; the secretariat of the International Sava River Basin Commission offered its assistance in identifying an appropriate representative. The working language for the steering group will be English.

Table 1. Timeline

(the timeline has been amended after the ninth meeting of WGMA)

Date	Action
March 2008	Meeting of the Core Group to prepare a proposal on the Second Assessment for consideration by Working Group on Monitoring and Assessment (WGMA).
June 2008	WGMA provided comments on the proposal and entrusted a Steering Group with the finalization of the proposal on the Assessment.
October 2008	Teleconference of the Steering Group on the draft content of the Assessment.
Early 2009	Questionnaire for data collection .is developed by the secretariat. Letter addressed from the Chairperson of the Meeting of the Parties, Chairperson of WGMA and Chairperson of WGIWRM to be sent to the relevant Ministers of the UNECE Member States to launch the preparatory process.
Spring 2009	A subregional meeting
Summer 2009	Meeting of WGMA to comment the draft documents and the content of the Assessment.
Autumn 2009	A subregional meeting

¹ Technical Aid to the Commonwealth of Independent States, under the European Commission.

Date	Action
November 2009	Meeting of the Parties to consider draft documents, as available
November 2009-September 2010	Consultations with countries; subregional meetings; preparation of new and revised drafts.
September 2010	WGMA will provide comments on the drafts and will endorse them.
September 2010-February 2011	Final consultations with countries; finalization of the text, editing and publishing; finalization of the findings/recommendations derived from the Assessment.
February-June 2011	Final negotiations on the Assessment and preparation for the Seventh "Environment for Europe" Conference; communication with countries and stakeholders to promote the Assessment.
... 2011	Seventh "Environment for Europe" Conference to consider the Assessment and take decision(s) on the findings/recommendations derived from the Assessment (to be submitted as the Category I document).

E. Budget estimate and fundraising

34. The total estimated costs for the preparation of the second assessment are around \$710,000 up to 2011 (3 years). The sum covers personnel costs, organizations of subregional meetings, travel of staff, travel of participants including to the meetings of the WGMA, consultancy fees for experts, editing, translation, layout, and production of maps (see the table 2).

Table 2. Budget estimate

Item	Sum in USD
Personnel costs: 1 L extrabudgetary staff member for the period September 2008-June 2011 (60% working time; it is a minimum that should be allocated; some of the time the staff member will need to work 100%, sometimes he/she will work part-time)	330,000
Organization of 6 subregional meetings, including travel of staff and participants	140,000
Organization of 3 meetings of WGMA, including travel of staff and participants	45,000
Consultancy fees: (experts, editing, translation, design and layout)	160,000
Production of maps	35,000
Total	710,000

35. Different modalities for raising funds should be considered. These include: (a) contributions to the Water Convention Trust Fund, and (b) contributions in kind through providing human resources and covering meeting costs and consultancies/experts services. The fund-raising should be seen as a joint undertaking aimed to pool resources from different donors, so that the project could be handled in the spirit of true transboundary cooperation. In addition to Governments, possible partners-donors could include the Global Water Partnership, International Water Assessment Center (IWAC), WMO, UNESCO, and World Water Assessment Programme.

36. The present and envisaged workload prevents the current staff of the secretariat from assuming full responsibility for this demanding task. Therefore, an adequately qualified

extrabudgetary staff member responsible for the preparation of the second Assessment is a key for the success of this challenging exercise. The major requirements for his/her qualification will be extensive knowledge of and experience in transboundary water issues, the ability to write analytical papers, and professional knowledge of English and Russian.

37. The responsible staff member had to start working on the preparation of the second Assessment from September 2008. At the time of writing, this requirement had not been fulfilled. However, Finland reported that it was considering providing an expert to support this activity starting from January 2009.

38. To date the following contributions and pledges had been made to support preparation of the second Assessment: €5,000 by Finland and 80,000 CHF by Switzerland. Germany and Switzerland expressed their will to co-fund this activity in future.

II. PROPOSED DRAFT OUTLINE OF THE SECOND ASSESSMENT

prepared by the secretariat in consultation with the Steering Group

A. Draft Contents Outline

MAPS

Whether maps will be split up into two types: maps on surface waters and maps on aquifers will depend on the feasibility of inclusion surface waters and aquifers in one single map for a given subregion.

- Overview map of main transboundary surface waters and aquifers in Western and Central Europe (*maybe split in more than one map*)
- Overview map of main transboundary surface waters and aquifers in Eastern Europe
- Overview map of main transboundary surface waters and aquifers in South-Eastern Europe
- Overview map of main transboundary surface waters and aquifers in Caucasus
- Overview map of main transboundary surface waters and aquifers in Central Asia
- Possible thematic maps (on health aspects, climate change impact on water resources). *It will be decided at a later stage whether maps will reflect vulnerability aspect or status.*

I. OVERVIEW/SUMMARY

II. OBJECTIVES AND SCOPE OF THE ASSESSMENT

III. MAJOR FINDINGS OF THE ASSESSMENT

Compared to the first assessment, conclusions will as much as possible have a further subregional focus highlighting differences between sub-regions.

Possibly as in the first assessment, tables will be used to summarize pressures, impacts and status

- Chapter 1 LEGAL AND INSTITUTIONAL FRAMEWORKS FOR TRANSBOUNDARY WATER MANAGEMENT
- Chapter 2 MONITORING OF TRANSBOUNDARY RIVERS, LAKES AND GROUNDWATERS
- Chapter 3 PRESSURES (Chapters 3 and 4 could be possibly merged)

- Chapter 4 STATUS AND IMPACT
Including specific issues such as climate change, health impacts, water-related ecosystems, as highlighted in the assessment of the different basins
- Chapter 5 RESPONSES
- Chapter 6 THE WAY FORWARD
Trends and recommendations

IV. FACTS AND FIGURES ON TRANSBOUNDARY RIVERS, LAKES AND GROUNDWATERS

A more detailed outline of the assessment of the different river basin is presented below

- Chapter 1 DRAINAGE BASINS OF THE WHITE SEA, BARENTS SEA AND KARA SEA
- Chapter 2 DRAINAGE BASINS OF THE SEA OF OKHOTSK AND SEA OF JAPAN
- Chapter 3 DRAINAGE BASIN OF THE ARAL SEA AND OTHER TRANSBOUNDARY WATERS IN CENTRAL ASIA
- Chapter 4 DRAINAGE BASIN OF THE CASPIAN SEA
- Chapter 5 DRAINAGE BASIN OF THE BLACK SEA
- Chapter 6 DRAINAGE BASIN OF THE MEDITERRANEAN SEA
- Chapter 7 DRAINAGE BASINS OF THE NORTH SEA AND EASTERN ATLANTIC
- Chapter 8 DRAINAGE BASIN OF THE BALTIC SEA

ANNEX 1: Inventory of Transboundary Rivers, Lakes and Groundwaters

ANNEX 2: Inventory of existing legal and institutional frameworks for cooperation (e.g. transboundary agreements)

ANNEX 3: List of Country Codes

ANNEX 4: List of Acronyms and Units of Measure

Other annexes?

B. Draft outline of a section for a river basin/aquifer under the Part on Facts and Figures

Each section should address in integrated way transboundary surface and groundwaters. Assessment of groundwaters which cannot be connected to any surface water will be presented at the end of the relevant chapter, following the same outline

I. Description of the basin

For selected basin this part will include a description of (transboundary) Ramsar site(s) in the basin

II. Existing legal and institutional frameworks for transboundary water management

Short information on the national legal and institutional frameworks, more details on transboundary agreements, established joint bodies, their mandate, composition and main activities

III. Hydrology and hydrogeology (integrated overview on surface waters and the shared aquifers in the basin)

IV. Pressure factors

For surface and groundwaters information on main pressures likely to cause a transboundary impact, including as relevant:

- *geochemical processes*
- *climate change and extreme weather events*
- *hydromorphological changes*
- *crop and animal production*
- *forestry*
- *mining and quarrying*
- *manufacturing*
- *electricity supply/hydropower*
- *sewerage and waste management*
- *transportation/navigation and storage*
- *tour operator activities/tourism*
- *industrial and other accidents*

V. Status and transboundary impact

5.1 Water quantity and quality, including biological assessment

5.2 Environment, including water-related ecosystems

For selected basin this part will include an assessment of (transboundary) Ramsar sites in the basin. The information will be presented in two ways, as relevant: integrated into the text and/or presented in boxes.

5.3 Social and health aspects

Information on climate change related impacts will be highlighted in the different chapters

VI. Response measures

6.1 Management instruments (*e.g. IWRM plans, recent agreed transboundary actions, measures to adapt to climate change, etc*)

6.2. Financing and investments

6.3 Involvement of stakeholders, including public participation and the private sector

VII. Future trends

7.1 Planned additional response measures

7.2 Foreseeable trends on the status, possibly including scenarios on water quality and water quantity
