



**Economic and Social
Council**

Distr.
GENERAL

ECE/MP.WAT/2006/15
9 November 2006

ENGLISH ONLY

ECONOMIC COMMISSION FOR EUROPE

**MEETING OF THE PARTIES TO THE CONVENTION ON
THE PROTECTION AND USE OF TRANSBOUNDARY
WATERCOURSES AND INTERNATIONAL LAKES**

Fourth meeting
Bonn (Germany), 20–22 November 2006
Item 7 (d) of the provisional agenda

**REPORT ON THE IMPLEMENTATION OF PILOT PROJECTS ON
TRANSBOUNDARY GROUNDWATERS, RIVERS AND LAKES**

Submitted by Slovakia and Finland

1. Under the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, guidelines for the monitoring and assessment of transboundary rivers, groundwaters and lakes were prepared. Following the adoption of these guidelines, a series of pilot projects was set up to test them and to support countries in their implementation. This document summarizes the work undertaken during the implementation of the pilot projects programme (see annex). More detailed information on the progress achieved through 2003 can be found in the Evaluation of the Rivers Pilot Projects (MP.WAT/2003/11) submitted to the third Meeting of the Parties (Madrid, 2003).
2. This document also recommends strategies for the pilot programme's implementation in 2007–2009, in particular concerning the role of the International Water Assessment Centre (IWAC).
3. The Meeting of the Parties may wish to:
 - a) Endorse the recommendations for future monitoring and assessment pilot projects (see annex);
 - b) Express its appreciation to the authors of this document and the other members of the pilot project teams for the work undertaken; and
 - c) Request the Working Group on Monitoring and Assessment and IWAC to take the analysis and recommendations presented here into account when further specifying activities in the 2007–2009 workplan.

Annex

REPORT ON THE IMPLEMENTATION TO DATE AND STRATEGIES FOR 2007–2009 FOR THE PILOT PROJECTS ON TRANSBOUNDARY GROUNDWATERS, RIVERS AND LAKES

I. INTRODUCTION

1. The 1996 *Guidelines on Monitoring and Assessment of Transboundary Rivers* were one of the first products of the Convention. A first revision of the *Guidelines* was undertaken in 2000.¹ At the same time, guidelines for the monitoring of transboundary groundwaters (UNECE, 2001)² and lakes (UNECE, 2003)³ were also published.
2. Following the adoption of the river guidelines in 1996, it was agreed to establish a series of pilot projects on transboundary rivers in the UNECE region. Eight river basins were proposed. A Core Group on River Pilots was set up to implement and coordinate five of these pilot projects in the following river basins: the Morava River basin (Slovakia and Czech Republic), the Bug River basin (Poland, Belarus and Ukraine), the Maros/Mures River basin (Hungary and Romania), the Ipel/Ipoly River basin (Hungary and Slovakia) and the Latorica/Latoritsya-Uh/Uzh River basin (Slovakia and Ukraine).
3. When adopting the Guidelines on Monitoring and Assessment of Transboundary and International Lakes, at their third meeting, the Parties to the Convention decided to test these guidelines by means of pilot projects. A pilot project on Lake Peipsi/Chudskoe, the largest transboundary lake in Europe, shared by Estonia and the Russian Federation, was established.
4. Similarly, groundwater pilot projects were established to test the Guidelines on Monitoring and Assessment of Transboundary Groundwaters.

Objectives of the pilot projects

5. The three main objectives of the UNECE pilot projects were to:
 - Demonstrate application of the guidelines on monitoring and assessment of transboundary rivers, groundwaters and lakes;
 - Support countries in the application and implementation of the guidelines; and
 - Learn from the experience gained in the pilot projects, identify gaps or weaknesses in the guidelines and improve them.

¹ www.unece.org/env/water/publications/documents/guidelinestransrivers2000.pdf.

² www.unece.org/env/water/publications/documents/guidelinesgroundwater.pdf.

³

www.unece.org/env/water/publications/documents/inventorylakes.pdf, www.unece.org/env/water/publications/documents/lakesstrategydoc.pdf and www.unece.org/env/water/publications/documents/lakestechnicaldoc.pdf.

II. PROGRAMME OF WORK

6. The work programme for the pilot projects began in 1997. The main phases and activities originally planned for each pilot project are shown in table 1. (See also Roncak et al., 1997.) In practice, four pilot projects already ended with the recommendations phase (see table 1), skipping the implementation phase, which would have required decisions about institutional responsibilities, as well as additional funding.

7. Phases 1 and 2 in table 1 can therefore be considered together as preparatory steps before the actual implementation of transboundary monitoring and assessment in Phase 3. Phase 3 becomes a continuous process (see the discussion of the monitoring cycle in Timmerman and Mulder, 1999), with regular feedback loops and evaluation and design modification processes to keep abreast of changing functions, uses, issues, legislative requirements and funding availability.

Table 1. Phases and activities of pilot projects

Phase	Activity	Report
1. Inception	<ul style="list-style-type: none"> • Prepare and agree on Memorandum of Understanding • Prepare funding proposal • Establish project teams and organizational responsibilities • Prepare workplan and inception report 	No. 1 Inception report
2. Analysis of monitoring and assessment needs	<ul style="list-style-type: none"> • Carry out inventory of basin and establish main water uses • Review and evaluate existing legislation • Carry out preliminary surveys of water quality and review existing quality data • Make inventories of polluting activities • Identify main water quality and water management issues • Specify information needs accordingly 	No. 2 Identification and review of water management issues
3. Development of recommendations	<ul style="list-style-type: none"> • Evaluate ability of existing monitoring to meet these needs • Develop strategies for monitoring and assessment • Recommend improvements and prepare cost estimates 	No. 3 Recommendations for improvement of monitoring and assessment
4. Implementation	<ul style="list-style-type: none"> • Redesign monitoring programmes • Implement recommended sampling and analytical methodologies, data handling and data exchange • Procure additional equipment as required • Develop quality assurance programmes • Train required staff at all levels • Report on water quality to all stakeholders 	(beyond the scope of the pilot projects)

Groundwater and rivers pilot projects⁴

8. Project activities are shown in figure 1. Activities in the first five left-hand boxes contributed to report no. 2, and those in the final three shaded boxes to report no. 3. In practice and to account for individual projects' varying rates of progress, specification of information needs was moved into report no. 3 for the Bug, Morava and Mures/Maros rivers, and reports no. 2 and no. 3 have been combined for the Ipel/Ipoly and Latorica/Uzh rivers. The reports on the Mures/Maros, Morava and Bug recommendations (no. 3) have been completed and printed. The Ipel/Ipoly recommendations (joint reports no. 2 and no. 3) were completed in early 2006.

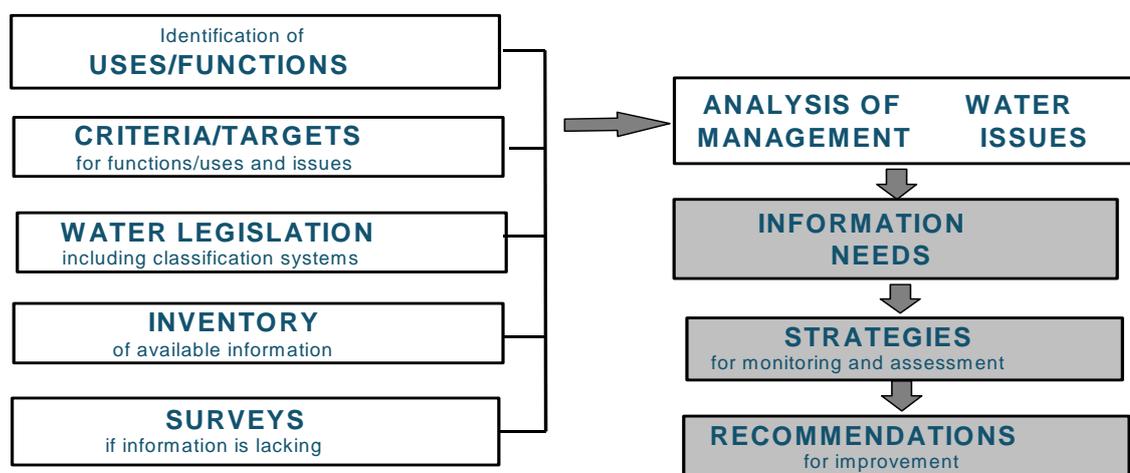


Figure 1. Steps in the preparatory phase of the river pilots

9. The first steps of the implementation phase were undertaken in two river basins. The Bug River pilot project, developed in the framework of the Neighbourhood Programme (Interreg IIIA/TACIS CBC), aimed to establish a monitoring system in accordance with the recommendations of report no. 3 and the requirements of the EU Water Framework Directive.

10. The second project implemented concerned the Maros/Mures River basin. The water quality working group of the Hungarian-Romanian Committee on Transboundary Water Management in 2005 proposed a new regulation on monitoring the quality of Hungarian-Romanian transboundary waters. The proposal was based on the requirements of the Water Framework Directive and on the recommendations of Mures/Maros report no.3. The Committee endorsed the regulation in 2006.

⁴ Participants in the pilot project team included Juliana Adamkova (Slovakia), Martin Adriaanse (previous project facilitator), Ilja Bernardova (Czech Republic), Pavol Čaučík (current project facilitator), P. J. Chilton (previous project facilitator), Natalia Chizhmakova (Ukraine), Daniela Durkovicova (Slovakia), Stanislav Juran (Czech Republic), Zdena Kelnarova (Slovakia), Vladimir Korneev (Belarus), Malgorzata Landsberg (Poland), Ferenc Laszlo (Hungary), Andrea Majovska (Slovakia), Florin Moldovan (Romania), Carmen Ognean (Romania), Peter Roncak (Slovakia), Alexander Samusenko (Belarus), Ileana Sandu (Romania), Zsuzsa Steindl (Hungary), Oxana Tarasova (Ukraine), Natalya Utochkina (Belarus), Alexandra Vancova (Slovakia), Alexei Yaroshevich (Ukraine), Teresa Zan (Poland).

11. Groundwater pilot projects were designed using the development phases described in table 1. Two transboundary aquifers pilot projects were established. The first was on the Aggtelek/Slovak Karst aquifer between Slovakia and Hungary; the second one was on the Bug River basin transboundary aquifer shared by Poland, Belarus and Ukraine.

12. The Aggtelek/Slovak Karst pilot project began in 2001 with the signing of a Memorandum of Understanding between the Governments of Hungary and Slovakia. In 2002 the project teams were created, and in 2003 the inception report was completed. It was agreed that the joint final report, consisting of reports no. 2 and no. 3, would be completed at the end of 2006.

13. Similarly, a Memorandum of Understanding for the Bug pilot project was signed between representatives of the Governments of Poland, Belarus and Ukraine in late 2004. A proposal for external funding was developed in early 2006.

Lake pilot projects

14. The original aim of the Peipsi/Chudskoe project was to improve transboundary cooperation between Estonia, Finland and the Russian Federation; to increase open exchange of environmental information between the participating countries; to develop comparable methods and procedures for monitoring and assessing the ecological status of Lake Peipsi-Chudskoe; and to test the UNECE Guidelines on Monitoring and Assessment of Transboundary and International Lakes (Lakes Guidelines). Furthermore, joint monitoring cruises on Lake Peipsi/Chudskoe were included in the original workplan. It was decided that the project should concentrate on nutrients and other relevant variables related to eutrophication, the major threat faced by the lake.⁵

15. The project had a pre-study in 2004–2005, during which the project group held a meeting in Tallinn and a trilateral joint monitoring cruise on Lake Peipsi/Chudskoe. The results were presented during a two-day meeting at the Finnish Environment Institute (SYKE) in Helsinki⁶ on 5–6 September 2005. During that meeting the project group decided to revise the original workplan thoroughly because the UNECE Lakes Guidelines were already being tested in another project involving Estonia and the Russian Federation (the UNDP/GEF project “Development and Implementation of the Lake Peipsi/Chudskoe Basin Management Programme”). The project group agreed to concentrate on the following three aspects:

⁵ Participants in the pilot project team included the following: (*from Estonia*) Margus Korsjukov, Estonian Ministry of the Environment; Ago Jaani, Estonian Ministry of the Environment; Külli Kangur, Estonian Agricultural University, Institute of Zoology and Botany; Rein Kolk, Tartu Environmental Research Ltd.; (*from Finland*) Lea Kauppi, Finnish Environment Institute (SYKE); Sirikka Haunia, SYKE; Olli-Pekka Pietiläinen, SYKE; Karri Eloheimo, Ministry of the Environment; (*from the Russian Federation*) Valentina V. Pluhina, Federal Agency for Water Resources; Alexander M. Ovanesjants, Rosgidromet; Elena E. Grineva, Baltvodhoz; Marina.V. Kazmina, Pskov regional office of the Neva-Ladoga basin administration; Svetlana L. Basova, Administration of Roshydromet; Valeri S. Vuglinski, Vice Director, National Hydrological Institute of Rosgidromet; Lidia I. Minina, Vice Director, Hydrochemical Institute of Rosgidromet.

⁶ As Finland has been the lead country for developing the guidelines, SYKE also has the overall responsibility for coordinating and facilitating the implementation of the pilot project.

- Comparison of Estonian, Russian and Finnish sampling methods, procedures and practices in the field (based on exchange of national information);
- Comparison of Estonian, Russian and Finnish analytical methodologies in the laboratory (based on exchange of national information) and arrangement of an intercalibration exercise, if necessary;
- A preliminary study and assessment of the role of internal loading/material balance of Lake Peipsi/Chudskoe. Based on the results of the preliminary assessment, a proposal for a new research project will be prepared.

16. The pilot project group will prepare a final report on the assessment results and recommendations, including proposals for future work. It is hoped that the results will promote transboundary water monitoring, assessment and management between Estonia, Finland and the Russian Federation and increase exchange of information. They should also provide feedback on the usefulness of the UNECE Lakes Guidelines and thus benefit all UNECE member countries. The current phase of the project is expected to end on 31 May 2007.⁷

III. STRATEGIES FOR IMPLEMENTATION OF PILOT PROJECTS DURING THE TRIENNIUM 2007–2009 AND BEYOND

17. The pilot projects still play an important role in the implementation of monitoring obligations stemming from the Water Convention monitoring obligations, and particularly in the testing of the guidelines. Furthermore, pilot projects have proven to be effective tools for establishing bilateral cooperation between riparian countries, supporting the upgrading of river basin management and implementing effective and efficient monitoring and assessment at the transboundary level. Therefore there is a need to continue to develop new pilot projects, taking into consideration experience gained and lessons learned from past projects.

18. The first precondition for successfully launching new pilot projects is a real willingness on the part of riparian countries to implement them. This readiness should be supported at the highest political level, and a memorandum of understanding signed by riparian countries should always be developed in parallel to pilot projects.

19. One lesson learned during the promotion of pilot projects on monitoring and assessment was that countries preferred projects with a broader scope than just monitoring and assessment. Joint projects also require achievable and practical objectives, which must fulfil the needs and requirements of both experts and decision makers in each river basin. Also, it is necessary to involve people with the appropriate levels of responsibility and authority within the institutions of riparian countries.

20. In the preparation of new pilot projects, emphasis should be given to the implementation requirements common to the Water Convention and the EU Water Framework Directive and, in particular, to the development of river basin management plans.

⁷ For more information contact. Olli-Pekka Pietiläinen at olli-pekka.pietilainen@ymparisto.fi, Finnish Environment Institute.

21. The financing of pilot projects is a key success factor. The absence of donor funding may limit willingness to cooperate in the implementation of pilot projects. It is necessary to seek financing opportunities not only from within riparian countries but also from other sources such as EU programmes and the Global Environment Facility (GEF), and by partnering with ongoing international projects.

The role of the International Water Assessment Centre

22. The International Water Assessment Centre (IWAC) will continue to play a key role in the implementation of the Water Convention through pilot projects.

23. IWAC, as focal point for the development and promotion of pilot projects on rivers and groundwater, will:

- Supervise and guide the ongoing pilot projects;
- Promote and disseminate the Water Convention's guidelines and the results of and experience gained from past pilot projects through workshops organized in the framework of transboundary river basin projects in the UNECE region;
- Help to create new pilot project teams; support them in project preparation; supervise and guide progress; and organize workshops and meetings to build cooperation and mutual exchange of knowledge and experience; and
- Help raise funds to finance new pilots. Cooperation will be sought with relevant joint bodies, ongoing international projects, such as projects of the EU TACIS programme, the GEF, the United States Agency for International Development (USAID), the United Nations Educational Scientific and Cultural Organization (UNESCO), the Organization for Security and Cooperation in Europe (OSCE) also, cooperation will be sought with other partners involved in the Internationally Shared Aquifer Resources Management (ISARM) Programme (e.g. the Food and Agriculture Organization of the United Nations and the International Association of Hydrogeologists).

Priority regions for the implementation of future pilot projects

24. The Working Group on Monitoring and Assessment, together with its core group on groundwater and recent pilot project teams, have identified three regions as priority areas for the development of new pilot projects:

- **South-Eastern Europe.** A river pilot project could be launched in the Sava River basin. A groundwater pilot project could be developed in cooperation with the proposed Regional Initiative for Transboundary Aquifer Resources Management in the Balkans, aimed at managing transboundary groundwater resources and environmental risks associated with water supply, wastewater disposal and

industrial and agricultural water pollution, including risks from potential conflicts between countries sharing transboundary aquifer resources.

- **Central Asia.** Within the framework of the newly developed Slovak assistance project on transboundary groundwater in Kazakhstan, new projects would be developed focusing on individual transboundary aquifers shared by Kazakhstan and Uzbekistan.
- **Caucasus.** A pilot project in the Khrami-Debed and Alazani river basins could be launched in the framework of the ongoing USAID South Caucasus Water Program. Similarly, a groundwater pilot project could be linked to the UNDP/GEF project "Reducing Transboundary Degradation of the Kura-Aras River Basin through Aquifer Management" developed with the participation of Armenia, Azerbaijan, Georgia, Iran and Turkey. Also, Finland has proposed to reconsider in a new project proposal the pilot project on Jandar Lake (shared by Azerbaijan and Georgia) and to include it in the workplan for the period 2007–2009.

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