

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

Working Group on Water Management Fourth meeting Agenda item 4 (a) Working Paper N. 4

Strengthening the capability of joint bodies to comply with the obligations under the Convention (programme element 2.2)

The secretariat organized, together with UNEP, the Swedish Environmental Protection Agency, the Russian Ministry of Natural Resources and the NGO Ecoterra (Moscow), a workshop in Moscow (31 March – 1 April 2003) to analyze the experience gained in East European, Caucasian and Central Asian (EECCA) countries in concluding and implementing international legal instruments on the protection and use of transboundary waters and to examine difficulties encountered in cooperating.

Representatives of 15 countries of the UNECE region (Armenia, Azerbaijan, Finland, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Republic of Moldova, Russian Federation, Sweden, Tajikistan, Turkmenistan, Ukraine, United Kingdom and Uzbekistan,), as well as the United Nations Economic Commission for Europe (UNECE), the United Nations Environmental Programme, Global International Waters Assessment (UNEP/GIWA) and representatives of NGOs (Agency "ECOTERRA" and Peipsi Center for Transboundary Cooperation) took part in the Workshop.

The development of cooperation between countries of EECCA and with countries outside EECCA was reviewed, the main problems discussed and some recommendations for future work drafted.

Below is made available a preliminary version of the document "Transboundary waters cooperation in the newly independent States" which will summarize the outcome of the workshop (please note that annexes are not reproduced). The final document will be presented at the Ministerial Conference in Kiev and at the third Meeting of the Parties to the Water Convention.

The Working Group is invited to discuss the paper, its recommendations, as well as possible follow-up in the future work plan.

Transboundary Water Cooperation in the NIS

1. Background

The project "Transboundary Water Cooperation in the newly independent States (NIS)" aims at examining approaches to, establishing the status of and proposing measures for strengthening, bilateral and multilateral cooperation in a specific sub-region of the United Nations Economic Commission for Europe (UNECE).

The sub-region is made up of the following 12 countries: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, referred hereinafter to as sub-region of newly independent States or NIS region¹.

Partners in the implementation of the project are the United Nations Economic Commission For Europe (UNECE), the United Nations Environmental Programme, Regional Office for Europe (UNEP/ROE), the Ministry for Natural Resources of the Russian Federation (RF MNR), the Swedish Environmental Protection Agency (SEPA), and the Agency For Environmental Assessments "Ecoterra".

This document is a major output of this project. It builds on and develops further conclusions from the High Level Meeting on the Strategic Partnership on Water for Sustainable Development in Moscow, 5-6 March 2003. It aims to define the status, trends and further needs with regard to the transboundary water cooperation in the NIS, and between NIS and other neighbouring countries. The analysis and recommendations of the document will provide a basis for future actions and projects on the development of cooperation in the NIS on transboundary waters, in particular within the work programme of the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) and the Strategic Partnership on Water for Sustainable Development (see below).

A draft of the document was discussed during the workshop "Transboundary Water Cooperation in the NIS" (Moscow, 31 March - 1 April 2003), organized within the framework of the project (Annex 1). The Centre for International Projects (CIP) was responsible for the practical arrangements of the workshop.

Representatives of 15 countries of the UNECE region (Armenia, Azerbaijan, Finland, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Republic of Moldova, Russian Federation, Sweden, Tajikistan, Turkmenistan, Ukraine, United Kingdom and Uzbekistan,), as well as the United Nations Economic Commission for Europe (UNECE), the United Nations Environmental Programme, Global International Waters Assessment (UNEP/GIWA) and representatives of NGOs (Agency "ECOTERRA" and Peipsi Center for Transboundary Cooperation) took part in the Workshop (Annex 2).

The document has been finalised and agreed upon by the project partners on the basis of the discussions during the Workshop. It will be made available during the Fifth Ministerial Conference

¹ All these countries are members of the Commonwealth of Independent States (CIS): Belarus (from 10.12.1991); Ukraine (from 10.12.1991); the Russian Federation (from 12.12.1991); Kazakhstan (from 23.12.1991); Turkmenistan (from 26.12.1991); Uzbekistan (from 04.01.1992); Armenia (from 18.02.1992); Kyrgyzstan (from 06.03.1992); Tajikistan (from 26.06.1992); Azerbaijan (from 24.09.1993); Georgia (from 03.12.1993); Republic Moldova (from 08.04.1994).

"Environment for Europe" (Kiev, Ukraine, 21-23 May 2003) and presented to the 3rd Meeting of the Parties to the UNECE Water Convention (Spain, 26-28 November 2003).

The project has been developed within the work programme of the UNECE Water Convention and the preparation to the Ministerial Conference in Kiev, May 2003.

At their second meeting, the Parties to the UNECE Water Convention agreed to assist Parties to the Convention, as well as non-Parties, at their request, to draw up new or adapt existing agreements on transboundary waters in line with the provisions of article 9, as well as other relevant articles. Furthermore, during the Conference on the 10th Anniversary of the Convention "Sustainable management in transboundary waters in Europe", (Miedzyzdroje, Poland, 21-24 April 2002), it was concluded that more support was needed to NIS.

The NGO Agency "ECOTERRA" proposed a project to examine whether existing agreements in the NIS region are in line with the provisions of the Convention and to develop recommendation for improvements. This proposal was supported by 12th Session of the Interstate Ecological Council (IEC) of the Commonwealth of Independent States (CIS), which was held in Yerevan, Armenia, on 15-16 November 2001 (Decision No 19 of IEC of 15.11.2001), by UNECE and UNEP/ROE (joint letter UNECE and UNEP/ROE of 12.04.2002).

Ministries of Ukraine and Georgia have taken the initiative to develop an environmental strategy for the 12 countries of the NIS region to be presented to the Ministerial Conference in Kiev, May 2003. One of the issues that will be approached in the strategy is integrated water resources management in transboundary river basins.

In parallel to the development of the Environmental Strategy, the European Union, at the World Summit on Sustainable Development (WSSD) (Johannesburg, September 2002) has formally launched the global "Water Initiative: Water for Life - Health, livelihoods, economic development and security (EUWI)". As part of the EUWI, a partnership was established in Johannesburg between EU and Ministers of the NIS: the "Strategic Partnership on Water for Sustainable Development". An important component of the Partnership is transboundary water cooperation in the NIS. The development of the Environmental Strategy and the EU Strategic Partnership in the NIS is a coordinated effort.

2. Transboundary waters in the NIS region

In Annex 3, the major transboundary rivers and lakes shared by the NIS, and the relevant existing agreements, are listed². There is a considerable inter-dependence between countries with regard to water resources. In particular in Central Asia, cooperation between countries sharing rivers such as Syr Daria and Amu Daria is crucial for life, economy and political stability. The reliance of Azerbaijan on drinking water from the transboundary river Kura is another example.

Many water allocation and pollution problems that were previously national issues within the Soviet Union are now transboundary issues. This requires a new and negotiated legal and regulatory framework for water resources management between sovereign States, which will take some time to achieve. There is generally a positive attitude towards establishing good cooperation on transboundary water issues in the NIS, and a lot has been achieved since the dissolution of the Soviet Union. However, examples can be found where there are difficulties in establishing a good cooperation. In some cases agreements have not yet been established between countries. If there are

² At this stage no inventory of shared groundwater resources has been made.

agreements, these are not always fully implemented, and may not be effective tools to tackle the relevant issues, nor address social, economic and environmental aspects.

3. Regional and Global Conventions

The NIS sub-region is part of the UNECE region, the only region where a unique legal environmental framework has been put in place. These legal documents provide a framework for the establishment of cooperation on specific rivers and lakes.

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes was signed in Helsinki (17 March1992). This Convention was developed under the auspices of UNECE, and entered into force on 6 October 1996. It plays an important role in the development of transboundary water cooperation in many parts of the UNECE region. Its Protocol on Water and Health addresses the prevention, control and reduction of water-related diseases.

A decade has passed since the signing of the Convention, and there are issues that were not fully dealt with during the negotiations and which need to be further developed. Landscape protection, ecosystem approach, flood protection and water allocation are a few examples.

Two other regional Conventions and their future protocols are also of importance for the cooperation on transboundary waters: the UNECE Convention on the Transboundary Effects of Industrial Accidents and the UNECE Convention on Environmental Impact Assessment in a Transboundary Context.

These regional Conventions are complementary and have provisions dealing with such important issues as public participation, environmental impact assessment, activity of joint bodies, etc.

The legal framework is developing and at the Ministerial Conference "Environment for Europe" (Kiev, 21-23 May 2003) a Protocol on civil liability and compensation for damage caused by the transboundary effects of industrial accidents on transboundary waters to the 1992 Convention on the protection and use of transboundary watercourses and international lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents, as well as a Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context will be open for signature.

The NIS have been active at the international level, participating in the negotiations of UNECE environmental conventions, ratifying many environmental conventions and developing sub-regional cooperation on the basis of various bilateral and multilateral agreements. An inventory of agreements on transboundary rivers and lakes in the NIS is presented in Annex 4. The situation with regard to ratification of the UNECE Environmental Conventions is found in Annex 5.

There are four borders between the countries of NIS Parties to the Convention, where provisions of the Conventions for the respective basins should be followed: the borders between the Republic of Moldova and Ukraine, Ukraine and the Russian Federation, the Russian Federation and Azerbaijan, and the Russian Federation and Kazakhstan.

With regard to borders between NIS and Parties to the UNECE Water Convention outside the NIS region, there are eight other borders, where provisions of the Conventions should be kept: the borders between the Russian Federation and Finland (Party to the Convention from 21.02.1996); the Russian Federation and Estonia (16.06.1995); the Russian Federation (Kaliningrad region) and Lithuania (28.04.2000); the Russian Federation

(Kaliningrad region) and Poland (15.03.2000); Ukraine and Poland; Ukraine and Hungary (02.09.1994); Ukraine and Romania (31.05.1995); and the Republic of Moldova and Romania.

Belarus intends to become a Party to the Convention, which is important as then there will be a continuous space from the north coast of the Baltic Sea (Finland) to the East coast of the Black Sea (the Russian Federation) through the Russian Federation - Estonia - Latvia - Lithuania - the Russian Federation (Kaliningrad region) - Belarus - Poland - Ukraine - Hungary - Romania - Republic of Moldova - Ukraine - the Russian Federation, where provisions of the Water Convention will be in force.

Some countries in the Caucasian sub-region (Armenia, Georgia) and in Central Asia (Uzbekistan, Tajikistan, Kyrgyzstan, and Turkmenistan) have not yet ratified the Convention.

The Water Convention is essentially made up of two main parts. Part I contains provisions relating to all Parties, whereas Part II sets out provisions relating to Parties that are riparian to a given transboundary watercourse.

Important provisions of the UNECE Water Convention for the development of water cooperation the NIS are found in Part II of the Convention. There are provisions concerning Bilateral and Multilateral Cooperation (Article 9), Consultations (Article 10), Joint Monitoring and Assessment (Article 11), Common Research and Development (Article 12), Exchange of Information between Riparian Countries (Article 13), Warning and Alarm Systems (Article 14), Mutual Assistance (Article 15) and Public Information (Article16). Some of these provisions will be discussed in this document.

The number of NIS that becomes Parties to different UNECE international treaties is increasing from year to year (Annex 5). The role of the UNECE environmental legislation, and in particular of the UNECE Water Convention, is increasing in the NIS. This trend is positive, also as the UNECE Environmental Conventions may contribute to the harmonization of legislation between the EU and the NIS. Important principles of the EU Water Framework Directive³ can be seen as a sub-regional response to implement the Water Convention.

The UN Convention on the Law of the Non-Navigational Uses of International Watercourses (1997) is a global convention providing a framework for cooperation on shared water resources. This Convention is focusing more on water allocation but is in other parts "softer" than the Water Convention, for example with regard to the obligation of concluding river basin agreements. It has been discussed as an alternative for a framework for transboundary cooperation in Central Asia. No NIS has yet ratified this Convention.

4. Transboundary Water Agreements before and after the dissolution of the Soviet Union

4.1 Transboundary water agreements of the Soviet Union

The Soviet Union signed some agreements dealing with transboundary waters regulating different aspects of use and protection of these waters. Examples of such agreements are found in some earlier UNECE publications⁴ and in Annex 4.

³ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, published in the Official Journal L 327 of 22/12/2000.

⁴ Bilateral and multilateral agreements and other arrangements in Europe and North America on the protection and use of transboundary waters (ECE/ENVWA/32, ECE/ENVWA/32/Add.1 and ECE/ENVWA/32/Add.2).

In some cases Joint Commissions were established under the agreements. Joint Commissions have been set up between Armenia and Turkey as well as Georgia and Turkey according to the Turkey-Soviet Agreement of 1927; Joint Commissions between Poland and Belarus, Poland and Lithuania, Poland and the Russian Federation, Poland and Ukraine were established according to Polish-Soviet Agreement of 1964. On the other hand, no commission was established under the Norwegian-Soviet Agreement of 1957. Commissioners appointed by the relevant Ministers of the Contracting Parties worked together under the Norwegian-Soviet Agreement of 1959.

Some of these agreements were prolonged after the dissolution of the Soviet Union, as they had been working successfully for decades. For example, the Governments of Finland and the Russian Federation developed the Protocol concerning inventory making of legislative background bilateral Russian-Finland relations. This Protocol, in which some transboundary water agreements were prolonged⁵, was signed on 11 July1992, in Helsinki.

4.2. Development of cooperation after 1991

There has been a certain activity with regard to negotiating and signing water basin agreements during the past years. In many cases these agreements have followed the principles of the Water Convention. New agreements were concluded between the Russian Federation and Estonia on the Lake Peipsi/Chudskoe - River Narva basin, between the Russian Federation and Belarus, Russian Federation and Kazakhstan and between Kyrgyzstan and Kazakhstan on the rivers Chu and Talas. The agreement of 1992 between the states in Central Asia to continue the cooperation on and allocation of water in the Syr Darya and Amu Darya basins according to practices and quantities employed during Soviet times, and its implementation has been very important for a region where access to water is restricted⁶.

The first international multilateral agreement on transboundary waters in the NIS region - the Agreement of the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan on Co-operation in Joint Management of Use and Protection of Water Resources of Interstate Sources was signed in Almaty (Kazakhstan), on 18 February 1992. Under this agreement the Inter-State Coordination Water-Management Commission (ICWC) of Central Asia was established.

ICWC is responsible for the development of water-management policy in the region, taking into account needs of all branches of industry and economy, rational use of water resources, and perspective programme of water supply for the regions and measures for its realization (Article 8). Article 9 of the Agreement defines the executive and control bodies of the Commission - the Basin Water-Management Joint Companies "Amu Darya" and "Syr Darya", responsible for activities in these two main rivers of the region.

An agreement was concluded between Azerbaijan and Georgia on the river Kura. However, further progress has not been made for other parts of the catchment area (i.e. the area shared by Azerbaijan, Armenia and Iran, i.e. the sub-basin of the river Araks). Annex 4 gives a more detailed account of the present situation with regard to river basin agreements.

⁵ Annex 4, Agreements 2, 7, 14.

⁶ Annex 4, Agreement 15.

⁷Annex 4, Agreement 15.

⁸ Annex 4, Agreement 16.

⁹ Annex 4, Agreement 17.

The agreement on General Principles of Interaction in Rational Use and Protection of Transboundary Water-bodies of the CIS Member States was signed in Moscow in 1998¹⁰, and it entered into force on 6 June 2002. There are three Parties to this CIS Transboundary Water Agreement (CIS TWA): Belarus (from 06.11.1998), the Russian Federation (06.06.2002) and Tajikistan (16.01.2001). The Agreement is based on provisions from the UNECE Water Convention (Preamble of the Agreement), but also deals with other important problems.

In particular, Parties to this Agreement have obligations to (Preamble):

- ✓ Use common methodological background for assessment of damage for water bodies;
- ✓ Avoid carrying out water management measures with likely negative effect on water bodies:
- ✓ Determine general principles of use and distribution of water resources (of transboundary watercourses).

The future application of the CIS TWA is not clear, and may depend on the further development of the cooperation in the Commonwealth of Independent States (CIS).

5. Trends and bottlenecks

It is a general and positive trend that cooperation in many transboundary river basins is developing well in the NIS region. Several new agreements have been concluded and joint commissions have been established (Annex 4).

The increasing influence of the UNECE Water Convention in the development of new transboundary water agreements in the NIS region is one of the main trends. The Convention is directly referred to in the Preamble of several recent agreements and its provisions are used in substantive articles.

Another important trend is the increasing interest of international organizations and donors in the issue of transboundary water cooperation. There are several examples of international projects promoting cooperation on transboundary waters. Pilot projects under the UNECE Water Convention in the NIS on monitoring and assessment of transboundary waters (rivers Kura, Pripyat, Severski Donets and Tobol), are funded by the EU TACIS programme¹¹. In Central Asia there are numerous projects funded by different donors aiming to improve cooperation on water issues. The projects under the Aral Sea Basin Programme are just a few examples. The Swedish Environmental Protection Agency funds a programme on transboundary waters discharging into the Baltic Sea.

The overall economic situation makes it at this stage very difficult to finance capital investment for water protection such as building of water treatment installations, or more efficient irrigation systems. It is also difficult to find resources to decrease risks for accidents in hazardous installations, tailing dams etc. In addition, there are several bottlenecks in the further development of the transboundary water cooperation in the NIS region:

After the dissolution of the Soviet Union, many of the NIS struggle with matching their available administrative resources with the tasks of a sovereign country. In some cases there is a lack of capacity and also expertise of staff involved in the transboundary cooperation.

¹⁰ Annex 4, Agreement 32.

¹¹ Other pilot projects on the rivers Bug (Belarus, Poland, Ukraine) and Latoriza/Uhz (Slovakia, Ukraine), financed under the TACIS programme, have been completed in 2002.

A fully integrated management of water resources, where the interests of different sectors as well as ecosystems are taken account of and the water basin principle is applied, is gaining ground but is generally not yet the basis for national water policy. Lack of dialogue, of coordinated action and cooperation between different national authorities with regard to water management is a significant problem in the countries, which also has a negative impact on the cooperation between different countries on transboundary waters. The lack of cooperation between Ministries responsible for water management and environmental protection in Central Asia is one obvious example.

In some cases, conflicting situations between countries have a negative impact on the development of cooperation. Competition among water users on how to share water both within countries, and internationally between upstream and downstream countries is in many cases not resolved. In Central Asia, for example, upstream countries may prioritise the use of water for hydroelectricity generation in winter whilst downstream countries mainly use water for irrigation in summer. Reasonable and equitable use of water resources does not seem to be agreed on in river basins such as the Kura basin (shared between Azerbaijan, Georgia and Armenia) or the Samur basin (between the Russian Federation and Azerbaijan). Difficult cooperation is also experienced with countries outside the NIS region, as for instance between the Russian Federation and China or between Georgia and Turkey.

Lack of legal and regulatory framework for bilateral or multilateral cooperation is in some cases a bottleneck. It is a demanding process to start and to conclude a negotiation process, in particular when there are significant conflicts that have to be solved underway.

In some cases authorities responsible for management of transboundary waters are not strong enough and/or do not have the mandate to develop a good cooperation.

Shortage of information, and lack of exchange of information between countries and to the public are difficult issues in the present situation.

6. Recommendations for further development of cooperation on transboundary waters

Cooperation on transboundary waters cannot be seen as a task separate from other national and international tasks of authorities responsible for water management. In the development and implementation of cooperation on transboundary waters, prioritisation and cost-efficiency are factors that should be taken into account; the allocation of resources should reflect an in-depth analysis and clear, agreed joint targets. There are instances where cooperation on several shared water basins is made within the framework of one agreement (e.g. agreement between Russia and Kazakhstan), which is one approach towards making cooperation more efficient.

A fully integrated management of water resources, where the interests of different sectors as well as ecosystems are taken account of, should be applied. The water basin should be used as the framework of cooperation.

Experience shows that it is positive to adopt a step-by-step approach in the development of cooperation. This approach contributes to the establishment of mutual confidence, and to an active prioritisation of what would be the most important issues to focus on within the available resources.

A specific national authority should have the overall responsibility for the management of transboundary waters, and this authority should have the responsibility to involve different stakeholders and sectors in the development and implementation of the cooperation. The framework of the bilateral or multilateral cooperation should facilitate local and regional cooperation on water between countries.

It would be of advantage for the development of cooperation if national water policies, and in particular the norms and standards for water in the national legislation would be harmonised between countries sharing water basins. In the longer term, it would be an option for countries to move towards the norms and standards shared by the EU countries.

To take advantage of the considerable regional experience and expertise, it is proposed to establish a network of experts and decision makers for the cross-fertilization between the different bodies acting in the region and, at the same time, to allow transfer of capacity from successful institutions from outside the region. ¹²

To take advantage of achievements of cooperative work and achieve the purposes of the regional agreements, it is recommended that NIS as a priority ratify and implement the UNECE Convention on the Protection and Use of Transboundary Watercourses and its Protocols on Water and Health and Civil Liability, the UNECE Convention on the Transboundary Effects of Industrial Accidents, as well as the UNECE Convention on Environmental Impact Assessment in a Transboundary Context. An overview of the ratification status of NIS is given in Annex 5. The ratification of the Conventions and their Protocols is also important to show commitment to international cooperation and build trust in the international community, including donors.

In the following the principal important components of cooperation on transboundary waters are accounted for. The overall recommendation is that all these components, in case they have not yet been developed, should be developed in the river basins that are found in Annex 3. Establishment of River Basin Agreements (6.1) and establishment of Joint Bodies (6.2) should be seen as a first priority.

6.1 Legal and regulatory framework and its implementation

In accordance with the Water Convention and the Protocol on Water and Health, Riparian Parties on the basis of equality and reciprocity - are recommended to draw up bilateral or multilateral river basin agreements or other arrangements, where these do not yet exist, or adapt existing ones, where necessary, to eliminate the contradictions with the basic principles of these legal instruments and to define their mutual relations and conduct regarding the aims of these instruments. It would be appropriate to reflect the relevant obligations of Global and Regional Conventions in the river basin agreements. Where a river basin includes both countries of the NIS region and EU accession countries, the drawing up of the agreements should take into account, as appropriate, the requirements of the EU Water Framework Directive.

Attention should be given to drawing up/developing existing agreements in the following river basins:

✓ Amu Darya, shared by Uzbekistan, Tajikistan, Turkmenistan and Afghanistan;

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This could be achieved through a series of workshops, each focusing on specific aspects of cooperation (e.g. legal, regulatory and institutional framework; joint monitoring and assessment, including exchange of information, information systems, early warning and alarm systems; pollution prevention, control and reduction; allocation of water resources and sustainable use of water; river basin management plans and relation with the EU Water Framework Directive - integrated water resources management including the ecosystem approach, environmental objectives and public participation; relation and policy integration with regional seas; flood prevention and flood protection). During the workshops, the situation in the different joint bodies and the level and development of cooperation related to the theme should be analyzed, participants be brought to review their approach and propose solutions. As an outcome, general recommendations for the region, as well as specific recommendations for specific river basins should be drawn and deadlines for their implementation set.

- ✓ Syr Darya, shared by Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan;
- ✓ Zeravshan, shared by Uzbekistan and Tajikistan;
- ✓ Kura, shared by Georgia, Armenia, Azerbaijan, Turkey and Iran;
- ✓ Samur, shared by Azerbaijan and the Russian Federation;
- ✓ Psou, shared by Russian Federation and Georgia;
- ✓ Bug, shared by Poland, Ukraine and Belarus, no agreement exists between Belarus and Poland:
- ✓ Daugava/Zapadnaya Dvina, shared by Russian Federation, Belarus and Latvia, no agreement exists between Belarus and Latvia; and
- ✓ Nemunas, shared by Russian Federation, Belarus and Lithuania, no agreement exists between Belarus and Lithuania.

The establishment of river basin conventions on the Dnepr and Dnestr would be of value for the further development of cooperation. A dialogue and information exchange should be established between China and the Russian Federation on the Irtysh river. There is also a need to formalise cooperation of smaller rivers, for example in the Fergana valley of Central Asia and smaller rivers shared by Turkmenistan and Iran.

It is of particular importance to revise existing water basin agreements in Central Asia, and negotiate and agree on agreement(s) in the Caucasian States. It is a weakness of some existing agreements and cooperation (for example in Central Asia) that water quality and protection of ecosystems is not seen as a central issue.

The agreements should define mutual relations and conduct of the countries sharing the basin regarding integrated water resources management and water-related diseases. They should define duties of the riparian countries with regard to unilaterally planned water utilization, procedures for transboundary environment impact assessment and responsibilities in case of floods, drought or emergency situations. It should provide consultation arrangements and operational mechanisms to prevent, control and reduce transboundary impact including identification of pollution sources, water pollution abatement, monitoring of water quality, health risks and water-related disease, public information and participation, liability regime for damage, and dispute settlement. Recommendations and guidelines, adopted by the Parties to the Convention, could provide further guidance on the drawing up of sub-regional agreements and the implementation of regional environmental conventions and protocols.

The establishment of agreements facilitates further development of cooperation. Revision, adaptation and further development of the agreement are made easier if a framework for cooperation and dialogue is in place. The Finnish-Russian agreement (Annex 4, no 4) is a successful example where the scope of cooperation has been progressively extended.

6.2 Establishment and strengthening of institutions

Joint hodies

Agreements or other arrangements shall provide for the establishment of joint bodies. A joint body is any bilateral or multilateral commission or other appropriate institutional arrangements for cooperation between the Riparian Parties, such as meetings of Plenipotentiaries. To deal with specific issue of cooperation, working groups could be established under the joint bodies.

In Annex 4 the status with regard to the establishment of joint bodies in the different river basins/lakes are accounted for. There is an immediate need to develop the existing joint bodies (ICWC, BVOs), responsible for the rivers Syr Darya and Amu Darya.

It should be emphasised that, if there are different joint bodies in the same river basin, institutional and administrative arrangements should be made for cooperation between these joint bodies. Similarly, cooperation among joint bodies established for the protection of inland waters and the protection of the marine environment should be established.

Staff of joint bodies should have a broad competence, including inland water and groundwater management, technical and legal issues, etc.

There is a need for capacity building and exchange of experience and information between different river basins on issues such as regulatory, scientific, methodological and other aspects of integrated management of transboundary rivers and transboundary cooperation, as well as practical results achieved in this field (see above and footnote 12).

Institutional and administrative arrangements for consultations and mutual assistance

In critical situations, such as accidental pollution of transboundary waters, floods and droughts, the Riparian Parties should provide mutual assistance upon request. Mutual assistance should also be provided in responding to outbreaks and incidents of water-related disease and significant threats of such outbreaks and incidents, especially from water-pollution incidents or extreme weather events. Consultations shall be held between the countries in the river basin, on the basis of reciprocity, good faith and good-neighbourliness, at the request of any such country. Institutional and administrative arrangements should be made among the riparian countries that are supportive of conducting consultations and providing assistance. These procedures should include:

- ✓ The direction, control, coordination and supervision of assistance;
- ✓ Local facilities and services to be rendered by the Party requesting assistance, including, where necessary, the facilitation of border-crossing formalities;
- ✓ Arrangements for holding harmless, indemnifying and/or compensating the assisting Party and/or its personnel, as well as for transit through territories of third Parties, where necessary;
- ✓ Reimbursement of assistance services

Positive experiences from joint management on accidental pollution and flooding can be drawn from the Ukraine-Russian cooperation on the river Severskij Donets.

6.3 Monitoring and assessment

A fundamental feature of transboundary cooperation is the design and establishment of joint monitoring and assessment programmes. This process requires countries to define common information need on the basis of their water management policies, and thereafter to design and operate monitoring programmes, agree on assessment strategies and review their water management strategies on the basis of the assessment results. Effective monitoring programmes should include exchange of harmonized data and information.

In the design of the monitoring programmes the need of integrated assessment should be taken into account. Cost-effectiveness and a stepwise approach are also important.

Experience already available in this field, such as the work developed by the Working Group on Monitoring and assessment under the UNECE Water Convention¹³ or the TACIS funded pilot projects, should be used.

6.4 Access to information and public participation

With a few exceptions, such as the cooperation between Estonia and Russia on the Lake Peipsi/Narva basin, on-going cooperation on transboundary rivers in the NIS do not take measures to involve the public properly. It is a challenge to significantly improve this situation.

Countries should enhance public participation, also at the transboundary level, particularly regarding environmental impact assessment. Involvement of water users associations and NGOs, e.g. as non-voting participants in meetings and other activities of competent authorities, will enhance the quality and the implementation of policies for sustainable integrated water management. It would be positive to support the formation of NGO associations within a specific water basin. These aspects should receive particular attention especially with regards to monitoring and assessment as well as organization of institutions and promotion of compliance. This must be based on transparent and reasonable criteria.

In the case of transboundary watercourses, basin States and joint bodies are recommended to establish procedures, including communication strategies, so that the public can have an oversight role in the conduct of transboundary cooperation including the fulfilment of obligations arising from agreements. Increased use of Internet would facilitate an efficient distribution of information. The development and implementation of international documents (e.g. water management and contingency plans) and response measures should be open to public participation. Riparian States are encouraged to provide for public participation, including NGOs, in the preparation and development of agreements, and NGOs should be invited to participate in intergovernmental negotiation meetings and comment on draft texts. Due account should be taken of such input.

An effective means to divulgate information on transboundary waters, to the public and to the experts in the field, would be to establish an international journal on transboundary water issues.

6.5 Demonstration projects

Cooperation could be established and strengthened through specific demonstration projects with clear terms of references, clear implementations responsibilities and time schedule. These projects should tackle specific common issues, such as flood prevention and flood protection, stress on small transboundary watercourses, etc.

6.6 River basin management planning

Development of river basin management planning including decision-support systems and integration of land and water management (concerted action plans) comes at a stage where the cooperation within a river basin has developed significantly. Among issues that should be prioritised at this stage of cooperation are:

✓ Joint targets, for the standards and levels of performance that need to be achieved or maintained for a high level of protection against transboundary impact and water-related disease;

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¹³ See also "Guidelines on Monitoring and Assessment of Transboundary Waters" of the UNECE Task Force on Monitoring & Assessment.

- ✓ Joint or coordinated water-management plans for the purpose of preventing, controlling and reducing any transboundary impacts;
- ✓ Joint or coordinated systems for surveillance and early-warning systems, contingency plans and response capacities as part of, or to complement, the national systems for the purpose of responding to outbreaks and incidents of water-related disease and significant threats of such outbreaks and incidents, especially from water-pollution incidents or extreme weather events;
- ✓ Agreed ways and means to jointly carry out environmental impact assessments of different economic development strategies and sectoral policies, plans, programmes and legislative proposals that have an impact on the water environment in river basins.

6.7 Recommendations for development of projects co-funded by donors

In the present economic situation, funding from donors is of significant importance to support development of cooperation on transboundary waters. To improve chances of attracting funding and to make sure that projects funding is used efficiently, receiving countries and donors should consider the following recommendations:

- ✓ Before initiating any projects to support the transboundary cooperation in a river basin a thorough analysis of the situation in the basin is recommended.
- ✓ Before starting projects it should be ensured that there is political commitment, clear mandates for the project participants, access to data and a constructive approach towards interagency cooperation among project partners.
- ✓ In case of political difficulties projects with a more technical focus might be the most efficient to initiate.
- ✓ External support is often best directed to complement the technical work that the management institution requires to develop policy and provide guidance on specific issues.
- ✓ Clear and specified commitments of the involved countries should be a condition for the funding of a project.
- ✓ Donors must not take over the responsibility for the cooperation, but restrict themselves to providing assistance for initiatives that promote the cooperation.
- ✓ The countries sharing the water basin should fund basic cooperation on transboundary waters. Outside funding should be focused on the development of the cooperation.
- ✓ Building capacity is generally of fundamental importance, in particular if there are capacity imbalances among the cooperating partners.
- ✓ National capacities should be used as much as possible in the implementation of projects.
- ✓ It could be useful to arrange a meeting of representatives of donors working in the NIS region for coordination of their activities on transboundary water cooperation. If such a meeting would take place the NIS should prepare their priorities in transboundary water cooperation.

7. Indicators and mechanisms for implementation and follow-up

This document and additional material from the workshop "Transboundary Water Cooperation in the NIS" (Moscow, 31 March - 1 April 2003) will serve as a background for the further work on transboundary waters within the EU Strategic Partnership on Water for Sustainable Development. Donors and NIS countries are invited to use the material in the development of future activities.

It is proposed that this document and its Annexes 3 and 4 are used to follow the progress in development of cooperation on transboundary rivers. The UNECE and UNEP/ROE Secretariat may update these Annexes, in collaboration with the countries of the NIS region and report the progress

to the fourth Meeting of the Parties of the Water Convention and to the following Ministerial Conference of the Environment for Europe-process.

UNECE together with the International Water Assessment Centre will take a lead in developing indicators for sustainable water management to be applicable at the global, regional, sub-regional. Transboundary, national and local levels (2003-2006) as a contribution to:

- The UN World Water Development report (2nd edition)
- The Strategic Partnership on Water for Sustainable Development for the NIS region

There is a need for support in this development of indicators by the Russian Federation, and for testing the indicators by all countries of the NIS region.