





World Water Forum 5th

TECHNICAL PAPER FOR TOPIC 3.1.

BASIN MANAGEMENT AND TRANSBOUNDARY COOPERATION

Within Theme 3

Managing and Protecting Water Resources and their Supply Systems

to Meet Human and Environmental Needs

1 - INTRODUCTION

2 – SESSION PROPOSAL

The topic will be conducted in Sessions with the explanatory chapters set out as follows:

- 1 Session objectives
- 2 Session contents
- 3 Session conclusion

3 - INTERIM FINDINGS - RECOMMENDATIONS

Topic coordinators	INBO and UNESCO
Contacts	UNESCO: Léna Salamé and Marguerite de Chaisemartin <u>L.Salame@unesco.org</u> and <u>m.chaisemartin@unesco.org</u> INBO: Jean – François Donzier and Daniel Valensuela <u>Jf.donzier@wanadoo.fr</u> and <u>d.valensuela@oieau.fr</u>

PART 1 – INTRODUCTION

The Purpose of the Technical Paper

This Technical Paper has two purposes, firstly to set the stage for the Topic 3.1 within the Theme 3 of the 5th World Water Forum (WWF) and secondly to provide a background & guidance to the participants of the Session 3.1, in which they will consider basin management and transboundary cooperation from four perspectives, given in Part 2. In Part 3 of the paper, interim findings - recommendations from the lead up discussions have been summarized for further debate.

Theme 3 of the 5th WWF addresses the management and protection of water resources and their supply systems to meet human and environmental needs. Within this broad theme, in addition to basin wide and transboundary water, the other topics will deal with planning to ensure adequate water resources, preservation of natural ecosystems, and management and protection of water resources. In the following few paragraphs a brief overview to the topic 3.1 will be presented. The overview is not by any means intended to be comprehensive, because the subject will be addressed in considerable detail in the course of the discussions on the four perspectives within the Topic. The four perspectives are described in the Session descriptions that follow this over view, in Part 2. The Session 3.1.1 will address cross & multi sectoral cooperation expressed through the term, Hydro Solidarity. The Session 3.1.2 will focus on meaningful engagement between stakeholders. In the Session 3.1.3 the issue of forging sustainable cooperation through institutional tools will be considered. The fourth perspective of basin management and transboundary cooperation, the availability of operational tools, will be considered in the Session 3.1.5, which will bring together the outcome of the dialogues held by the experts and participants.

Clearly the four perspectives that have been chosen to cover the many and varied aspects of basin management and transboundary cooperation will not be all-inclusive and some related issues may not be covered. However, the lead up discussions in the virtual forum of the 5th WWF and the written contributions received from many contributors will be included in the Synthesis Session and are summarized in Part 3.

The impact of global changes on basin management and transboundary cooperation

It is an uncontroversial finding of all scientific and technological investigations of the past decade that water resources and their global distributions are changing very rapidly from direct and indirect anthropogenic forces. These changes are bringing with them hitherto unanticipated impacts to human society and to the earths ecosystems. Consequently the way in which water is managed in the future will have to change. As reflected in the title of this Topic, the management and the protection of water resources is best carried out in the context of river basins. This ideal is far from reality and the demands for water have been on the increase matching the growing population densities, urbanization expanding industry and food production, as well as energy and tourism, needs. The resulting competition for scarce water takes place between social groups and across geographical boundaries and is multi sectoral. In some regions of the world the intensity of the competition can lead to conflicts. The conflicts mirror the nature of the competition being in some places between sectors and others between social groups. A seemingly obvious solution to the conflicts is the need to cooperate and take joint measures. While stating this is simple enough, converting this into basin cooperative solutions is significantly more complex. It is this complexity that the Topic 3.1 seeks to address. If the complexity of the cooperation is daunting within one country, then it is even more overwhelming in river basins that occur in the territories of more than one nation.

Progress Made In the Recent Past

Since more than a decade, river basin management experienced a quick development in many countries and regions: in some cases it served as the basis of regional or national legislations on water; in other cases it served as the basis of successful experiments in national or transboundary pilot basins.

The issue of basin management and transboundary cooperation over water resources has been increasingly recognized not only by the science and the technology communities, but also by many ministerial declarations and many other communities of social scientists, economists, NGO's and government agencies. Significant contributions have been made to awareness raising and gaining commitments from stakeholders to adopt better policies, in particular by the agencies of the UN, the G8 and other committed governmental and non governmental organizations. The evidences can be seen in the assessment reports that followed the previous world water for in Kvoto (2003) and Mexico (2005). Interspersed between these fora, many global or regional events, have also addressed these problems. Programmes such as the PCCP. ISARM, INBO-AP. Twinbasins. EUWI and many others have been supported by many diverse organizations. Clearly a significant amount has been achieved, yet this is insufficient, because the conversions of policy statements have not yet been sufficiently transformed into actions on the ground. True, many local and regional successes have been achieved, but replication of these achievements needs to be accelerated, to match and possibly exceed the rate at which the global changes, including accelerating climate variability are taking place. Some of the agencies engaged in supporting this type of effort include the GEF, the EU's global Water Initiative and bi and multilateral financing agencies.

Some Issues of Overarching Concern

As guidance to the participants of topic 3.1, session objectives, contents and likely conclusions are given in the description in Part 2. However some of the issues of overarching concern that may be addressed by each of the sessions are briefly outline next.

The assessments and the analyses made by many experts the world over who are dealing with the management of transboundary and national basins suggest that the time is ripe at the 5th WWF to move towards more action through implementation of policies already in hand. These actions should consider the following – the onset of global change requires adoption of adaptive strategies; the understanding of basin management and transboundary cooperation that has been gained should be strengthened and more widely disseminated; the existing legal and the institutional frameworks should be realigned for the forthcoming changes; water resource management organizations should strengthen themselves and build their capacities; harmonized and integrated water management plans at national level and across borders should be adopted; education and training on basin management and transboundary cooperation should be significantly increased.

While the areas for action noted above may not be a comprehensive list, they no doubt provide a framework from which the participants of the four sessions could reach a consensus.

Some specific Issues for Discussion

In the run up the preparations for this Session, in the course of debates and preparatory meeting, the specific issues were raised, and they should be debated by the participants:

- How to practically apply the concept of hydro-solidarity to water resource management?
- What are the success stories and failures of hydro-solidarity efforts that have been carried out in many regions of the world?
- Are basins the natural geographical unit to implement efficient water management policy? By analogy, how should the 'aquifer systems' be considered the natural units for groundwater?
- How to harmonise and reformulate national water policies that reinforce the integrity of river basins?
- Why is the relatively simple concept of conjunctive use of surface and groundwater so difficult to convert to action?
- What are the 'best practices' that ensure stakeholders' participation in water resource management?
- How to organize effective participation of water users, local powers, NGOs and the wider public in basin management and how to increase water awareness in the field?

- Legal instruments for water management have been developed on local, regional and global scale: how effective and relevant are they in reality for resources management and governance?
- Are international conventions and treaties of any added value to better manage transboundary basins and aquifers?
- How should riparian states share the benefits from the sustainable management of their transboundary surface and groundwater resources?
- What are the best practices to better planning, financing and monitoring at basin level?
- How to replicate them for sound planning, financing and monitoring of water resources?
- How to replicate the good principles and practices (such as IWRM among others) developed in some regions, to different regions of the world?

Summary

The whole of the 5th World Water Forum, with all its many Sessions constitutes a harmonious whole, of which many of the other Sessions will also tackle a huge plethora of the issues that relate to basin management and transboundary cooperation, even if those other Sessions do not explicitly repeat the wording of Topic 3.1.

Nevertheless, the Sessions of Topic 3.1 have one principal objective: which is distilling the topmost challenges faced by the professionals, decision-makers and civil society.

These challenges focus on the actions needed for the sound use of national and transboundary waters, the conversion of policies into action that results in less degradation of water quality through local, national and transboundary basins cooperation. Some interim findings - recommendations are summarised in Part 3 of this paper.

Session 3.1.1 Boundless Basins: What are the successes and failures of hydro-solidarity?

Friday March the 20th – 8:30 to 10:30 - SUTLUCE

1. Session objectives: To determine how hydro solidarity can be achieved and how the obstacles and constraints in this field can be overcome, notably by studying the successes and failures of hydro-solidarity.

The term "hydro-solidarity" describes an increasingly integrated approach to managing water resources that relies heavily on participation and coordination among community stakeholders, on local level (local governments and water users), on the national level (national governments and water-related management agencies) and on the international level (between riparian states).

2. Session contents: Basins being natural territories in which water runs on the surface or in the sub-soil, independently of national or administrative boundaries, shall be considered as a unit in which hydro-solidarity should be applied, and the term "hydro solidarity" should therefore be used in accordance with this integrated approach involving other natural resources of the basin besides water.

Hydro solidarity has different facets. It can notably be achieved through the coordination of water resources policies with other natural resources and sectoral policies, such as land-use management and environment-orientated planning, by way of an integrated approach favouring long-term and contingency planning.

Stakeholders also play a fundamental role in solving common problems and influencing water management, as well as adapting legislation to the needs of sustainable development.

Countries should focus first on optimizing the generation of basin-wide benefits, and secondly on sharing those benefits in a manner that is agreed as fair. The perception by all parties that a cooperative basin development and management plan which maximizes overall benefits is "fair" is essential to motivating and sustaining cooperation.

These tools can insure benefits for riparian states and inhabitants and promote consensus. A variety of tools can be engaged by stakeholders, on both the technical and the institutional level, such as: collecting and communicating data, monitoring and controlling water pollution, financing water management and infrastructures, preventing water disasters, or creating and strengthening basin organizations, providing for negotiation and conflict resolution mechanisms.

The creation of Basin Organisations improves water management. But the experience shows that there are many different types of Basin Organisation which could be appropriate, depending on the particular challenges to be addressed in each situation. The design of basin organisations has to be developed according the existing institutional arrangements already in place and the roles they have to play in the regional, national and local landscape. That means great thinking has to be made before creating basin organisation, agencies or whatever.

3. Conclusion: The fundamental goal of hydro-solidarity is to tackle the organisation of the cooperative, unified management of water resources, whether at the local, at the national or at the international level.

The session will stress the importance of applying hydro-solidarity to water management while adapting it to the specific challenges of the resources in question, at national and international levels.

It will show the added value of a basin approach and the benefits of creating or strengthening a basin organization

Reviewing the success stories and shortcomings of local, national and international cooperation can help broaden the field's perspectives, and identify the challenges as well as the specificities of the various contexts to which it applies. That knowledge and experience can then be shared with the relevant actors and allow them to implement a cooperation-based approach with the greatest chance of success.

*

Session 3.1.2 How can stakeholder be involved in basin management and Transboundary water cooperation?

Friday March the 20th – 11:00 to 13:00 - SUTLUCE

1. Session objectives: To identify relevant stakeholders and determine how their participation in basin management and transboundary water cooperation can be promoted, and with which means.

Various questions have to be analysed through the presentation practical examples emphasizing the various kinds of cooperative participation (such as institutional frameworks, basin committees, education and empowerment, consultation, information, involvement).

2. Session contents: The session will scrutinize a wide array of issues to be taken into account when aiming at a genuine stakeholders' participation in basin management and transboundary cooperation, such as the choice of the level of participation, the identification of the stakeholders, the systems of representation and legitimacy, the mechanisms for participation, the level of responsibility eventually transferred and the funding of the participation process.

Therefore, stakeholders' participation in water management has to be developed at local, national, regional and international level. Depending on the case the level of intervention may vary and different stakeholders can be identified (the authorities, regional and international organisations, civil society, the private sector, economical sectors, water users).

Understanding the roles of specific groups such as women, NGOs, poor people, young people, etc. within their respective contexts is also a key issue for determining how these particular stakeholders will participate in the decision-making process.

Public participation is fundamental to maximize agreement, enhance transparency and decisionmaking, create ownership of the agreements to be reached and facilitate the acceptance and enforcement of decisions and policies. It is also a mechanism for gaining a better or common understanding between the various stakeholders, on the nature of a given problem and the desirability of specific outcomes.

But, what does this exactly mean? What kind of participation is needed? Difference between information, consultation, participation, decentralization and empowerment has to be clarified.

Institutions should have indeed the capacity (financial, structural, and also thanks to their status) to bring people together by helping them to achieve conciliation and better understanding of the issues.

Users' participation is more and more organized within bodies for dialogue and a real mobilization of partners, such as basin committees or councils and now many countries have introduced such participative systems in their national water law or are testing them in pilot projects.

These basin bodies should be involved in the decision-making related to water policy in the basin, using procedures that clearly define their role in preparing the decisions to be made by the responsible public Authorities.

Numerous methods exist for public involvement ranging from only information, compilation of a stakeholders' database for network interaction to official consultation, real participation process and public hearings.

This will often require reshaping the mandate of traditional water administrations — from unilateral decision-makers to facilitators — and shifting the balance of decision-making power towards users. Such a shift needs high-level political support, capacity-building, and incentives for change on the part of the organizations themselves. It also takes time and often significant resources.

Frontiers frequently represent a "delimiter" not only of a linguistic but also a cultural and socioeconomic nature, and the public can be insufficiently aware of how to take part in decision-making. In addition, mechanisms of public participation are not well developed in many countries and even less at the transboundary level. But examples show that it is also possible to involve stakeholders in transboundary basin and aquifers management.

The new process for a strong "grand public consultation" at 3 stages of the implementation of the European Water framework Directive of 2000 is bringing new knowledge on the participating approach in basin management.

3. Conclusion: The session will identify key mechanisms and requirements for the identification of the stakeholders and the development of their participation to a decision making process. Such mechanisms and requirements should be adapted to serve in specific contexts and help establish pertinent and genuine strategies in the organization of participatory processes.

*

Session 3.1.3

How can cooperation over transboundary surface and groundwater resources be achieved in a sustainable manner?

Friday March the 20th – 14:30 to 19:00 - SUTLUCE

1. Session objectives: To determine which institutional tools and mechanisms can serve the achievement of cooperation over transboundary surface and groundwater resources in a sustainable and equitable manner.

Cooperation over water resources needs an institutional framework to guarantee its sustainability and equity. International commissions, authorities or organizations foster dialogue, the exchange of critical information, the resolution of possible conflicts and the sharing of benefits resulting from better joint management, as well as the strengthening of transboundary cooperation.

2. Session contents: The session will assess the institutional tools and mechanisms available for the development of cooperation and the prevention of conflicts over transboundary water resources.

There are 276 transboundary river basins around the world and 274 transboundary aquifers identified so far, upon which over 3 billion people depend. Since the development of a people depends a lot on transboundary water resources, numerous tools have been developed to improve institutional cooperation.

Certainly, many agreements have been signed between riparian countries to ensure freedom of navigation or sometimes the sharing of flows or the prevention of floods, and, since the end of the 19th century, for the building of hydro-power dams. Nevertheless, there are still not enough agreements, conventions or treaties on pollution control, environmental protection and integrated joint management of these transboundary basins today.

Differences between riparian countries – in terms of socio-economic development, capacity to manage water resources, infrastructure, political orientation and institutional as well as legal contexts – represent challenges to effective and coordinated development as well as to the joint management and protection of transboundary water resources.

At the same time, these differences open up opportunities for capacity development and technical, social, economic, legal and institutional cooperation. Cooperation enables better ecological management, providing benefits to rivers, aquifers, lakes, wetlands and related ecosystems as well as to adjacent estuaries, coastal areas and seas. It also underpins important further types of benefits.

Transboundary water management can thus directly or indirectly contribute to international trade, economic development, food security, political security, poverty alleviation and regional integration. Moreover, transboundary water management implies that each riparian country puts in place relevant arrangements at basin level in line with international rules on transboundary waters.

Sustainable cooperation can be achieved by way of agreements relating to policy development and implementation, including formulating joint policies; strategies and visions to implement the particular agreement; coordination and advisory functions; and implementation and dispute settlement.

Around the world, many countries that share transboundary rivers, lakes or aquifers have created International Commissions, Basin Authorities or Cooperation and Development Organizations. Depending on the contexts in which they operate the role of these institutions can indeed cover a wide range of competences such as arbitration related to water allocation, resolution of boarder conflicts, building and managing common infrastructures, navigation rules, improvement of water quality and restoration of aquatic ecosystems. There is much to learn from their experiences in establishing specific regional guidelines and bi- or multilateral treaties, as well as in designing the mandates, Charts of organizations and other tools for the functioning of transboundary water bodies.

For joint bodies to be effective, their institutional and human capacities are crucial. Negotiation, diplomacy and conflict resolution skills of their staff need to be developed and improved. The capacity to develop and implement policies and laws as well as the relevant enforcement mechanisms is vital, and should be developed accordingly, as is setting up funding arrangements, both internal and external.

In addition to joint commissions or institutions, the UN and regional cooperation bodies can play a supportive and facilitating role.

The 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki Water Convention), originally limited to Europe beyond the UNECE region, has been the basis for adoption of many bilateral and multilateral agreements, most notably the 1994 Convention on the Cooperation for the Protection and Sustainable Use of the Danube River.

At the global level, the 1997 Convention on the Non-navigational Uses of International Watercourses enables inter-state cooperation on international watercourses has not been ratified yet, but its core principles are already part of many international customary agreements.

The United Nations International Law Commission has prepared a set of articles related to the use of shared aquifers which was adopted during the last session of the UN General Assembly.

The European Water Framework Directive is still implemented by the 27 EU Members States and some neighbor Countries and fixes as a common objective before 2015 the good ecological statute of water and ecosystems in all the concerned basins including all the transboundary ones.

Through various initiatives, the members of UN-Water are focusing on developing cooperation over transboundary waters among riparian countries. They are also trying to tip the balance from potential conflict to cooperation, by supporting countries in their efforts to improve the management of transboundary water resources.

3. Conclusion: The session will assess existing institutional tools and mechanisms, notably the existing transboundary basin organizations, the international conventions, bilateral and multilateral agreements already in existence, the United Nations General Assembly Resolution on the law of Transboundary aquifers A/RES/63/124 (11 December 2008) and how to implement it, and which dispute resolution mechanisms are needed. Moreover, the session will attempt to make suggestions on how to fill the gaps in order to improve the track record of cooperation. It will offer an opportunity to transfer knowledge and practices.

Session 3.1.4

Which are the operational tools that allow achieving transboundary cooperation and sound basin management?

Saturday March the 21st – 8:30 to 10:30 - SUTLUCE

1. Session objectives: To show how basin management can be enhanced by creating efficient and appropriate tools, such as long term management plans, programmes of measures and investments, funding mechanisms and information systems. Such tools are therefore necessary prerequisites for the effective development and management of national and international basins.

2. Session contents: The session will present experiences and discuss of the way to better elaboration and implementation of:

- medium and long term basin management plans,
- 4 to 6 years basin action and investment programmes,
- basin financial resources and funding mechanisms,
- basin information and monitoring systems.

It is necessary to set attainable objectives and define priorities according to available means, to define a progressive and realistic development which first concern parameters which cause the most serious disruptions that can be solved thanks to easily applicable technical and funding solutions, to select easily identifiable "black spots", to involve at least all the main users and polluters. It is relevant to tackle the most important issues first instead of getting dispersed which could lead to many difficulties and low financial yield in all sectors. Basin planning may be based on a medium and long-term "joint vision" shared by all the stakeholders. Scenarios can help to forecast the evolutions and their consequences, the results and efficiency of proposed measures and are very pedagogical tools for discussion and support decision making between the different stakeholders.

Economic calculation techniques and indicators can allow the establishment of more reliable economic bases for choosing investments and evaluating large projects. The socio-economic evaluation, the search for the "cheapest solutions", the choice of projects, must distinguish the different levels to retain for water resources development, sectoral uses and wastewater treatment. Methodologies for the evaluation of multi-purpose projects should be particularly precise, those for multi-purpose dams in particular.

Water policy is highly capitalistic and must be defined for a 15 or 30 year period depending on initial situations and acceptable efforts. Priority Action and investment programmes must set possible actions to be carried out in the short term (4 to 6 years), according to emergencies, financial resources that are really available and administrative or technical constraints to the implementation of real projects.

The costs for developing legal frameworks, establishing institutions, developing capacity, creating monitoring, data-sharing and assessment systems and design long term management plans and investment programmes need to be sustainable.

The investments necessary for the sustainable management, conservation and control of water resources and ecosystems and for the exploitation, maintenance and rehabilitation of public utilities will require huge financial resources. All analyses converge to show that, in general, traditional centralized public budgets (subsidies) have reached their limit to meet alone all the financial needs of the water sector. Therefore, it is necessary to set up everywhere complementary

funding systems, which are based on the participation and common cause of the users and on the "user – polluter-pay" principles.

The organization and implementation of the information system is a priority tool for the good governance as well as for resource management and risk prevention.

The creation of efficient basin information systems (on the status of quantity and quality of surface and groundwater resources, biotopes and the aquatic environment's situation, water uses, the risks of recurring extreme phenomena, economic indicators) is a sine qua none to facilitate the exchange of data and the access of various stakeholders to comprehensive, representative and reliable information, in the most appropriate forms, at all relevant levels.

3. Conclusion: The session will focus on operational tools that are crucial for the improvement of water resources management at basin level, as well as for the reinforcement of transboundary cooperation.

The session will also offer examples of tools that have proven to be successful based on real life experiences. These can be related to planning methods, including risk and disaster management and prevention, funding mechanisms, integrated information systems, training and capacity development.

3.1.5 - Concluding Session

How can we bridge the divide between various users whose lives depend on common water resources? And how should we just do it!

Summary and Strategic Orientations Saturday March the 21st – 11: 00 to 13:00 – SUTLUCE

1. Session objectives: To show that basin management and transboundary cooperation can be achieved in a successful and sustainable manner when there is a genuine political will to do so and truly efficient stakeholders' participation and involvement.

Based on the debate that has taken place during the various sessions related to Topic 3.1., this synthesis session will underline the importance of cooperation across borders and the interests of a basin approach. It will propose the institutional and operational tools useful to implement achieve these objectives in various situations.

2. Session contents: This session will recall the conclusions of the discussions on transboundary cooperation and basin management that have taken place during the Topic 3.1 sessions.

The session will summarize the main challenges faced by professionals, decision-makers and civil society concerned with the use of waters, in order to facilitate the formulation of policy recommendations for the improvement of the quality of basin management and cooperation at local, national and transboundary level.

These suggestions and orientations formulated during the sessions will prove that through cooperation, countries and all stakeholders sharing a common local, national or transboundary basin and a common destiny, can serve their joint interests while preserving and protecting the water resources and aquatic environments for future generations.

*

Continue on the next page for Interim Findings and Recommendations

PART 3 – INTERIM FINDINGS – RECOMMENDATIONS

Taking account of the many contributions received in the Virtual Meeting Forum, or sent directly to the session coordinators, by the 190 session stakeholders, some interim findings & recommendations, which will be revised after the Sessions in Istanbul, can be summarized as follows:

- [FINDING] Strong political will and long term commitment are pre requisites for sustainable basin management and transboundary cooperation in the face of global changes
- [FINDING] Significant progress has already been made since the 1990s with reforms undertaken in many regions and countries around the world and supported by the UN Agencies, NGOs such as INBO, and financing organizations such as the GEF & IFI's.and other bi- or multilateral donors.
- [RECOMMENDATION] The progress made so far is insufficient to meet the requirements of a globally changing world. Adaptive strategies focused on maintaining the integrity of river basins and aquifer systems should become the norm in national and international policy. This will require:

1) Surface water to be managed in river and lake basin units and groundwater to be managed in aquifer systems units – where the two resources are used together, they should be used conjunctively;

2) Essential quantitative information on resources, their uses, polluting pressures, ecosystems and their functions, the follow-up of their evolutions and risk assessment should be obtained and made accessible. This information should be used as the objective basis for dialogue, negotiation, decision-making and evaluation of undertaken actions, as well as coordination of financing from the various donors;

3) Focusing on long-term objectives of achieving river basin water resource integrity, based on well conceived management plans or master plans that are implanted in given time horizons;

4) Significant increase in training and educational programmes for responding to the adaptation needs in cooperation building and basin management;

5) Mobilization of financial resources to suit the different and diverse needs of countries based on their socio economies, cultural priorities, and geopolitical considerations.

- [RECOMMENDATION] As global inventories of transboundary basins, transboundary aquifer systems and their technical and social peculiarities become clear, through the global programmes supported by PCCP, World Water Assessment Programme, ISARM, EU-WFD, EUWI, INBO-AP and others, available conventions and agreements should be adopted by the riparian States.
- [RECOMMENDATION] Existing and developing international legal instruments and adapted tools and experiences concerning transboundary water resources management should be further disseminated through efforts of agencies such as the GEF, UN organizations and the IFI's and through networks promoting cooperation around water resources River Basin's Organizations and their networks.