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Working Group on Integrated Water Resources Management

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Item 7 of the provisional agenda
Quantifying the benefits of transboundary cooperation

Quantifying the benefits of transboundary cooperation

Note prepared by the secretariat

Summary

At its sixth session (Rome, 28–30 November 2012), the Meeting of the Parties to the United Nations Economic Commission for Europe Convention on the Protection and Use of Transboundary Watercourses and International Lakes mandated the Working Group on Integrated Water Resources Management to prepare a guidance note on the benefits of transboundary cooperation in the programme of work for 2013–2015 for the Convention (see ECE/MP.WAT/37/Add.1, forthcoming).

The present document describes the plans for the development of the guidance note. It was prepared on the basis of the outcomes of the Expert Scoping Workshop on Quantifying the Benefits of Transboundary Water Cooperation (Amsterdam, 6–7 June 2013). It describes the background for the work on benefits, presents the draft annotated outline of the policy guidance note on how to identify, quantify and communicate the benefits of transboundary water cooperation, and includes a proposed schedule for the development of the guidance.

ECE/MP.WAT/WG.1/2013/4

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I. Background and proposed action by the Working Group

- 1. The Meeting of the Parties to the United Nations Economic Commission for Europe (ECE) Convention of the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) at its sixth session (Rome, 28–30 November 2012) decided to include the following activities in the programme of work for 2013–2015 regarding the quantification of the benefits of transboundary cooperation (see ECE/MP.WAT/37/Add.1, forthcoming):
- (a) Develop an approach for quantifying the benefits of transboundary cooperation, including the development of a typology of benefits and the analysis of existing methodologies to quantify those benefits, and gather experience through the organization of a workshop;
 - (b) Produce and publish a guidance note on the benefits of cooperation.
- 2. The Expert Scoping Workshop on Quantifying the Benefits of Transboundary Water Cooperation (Amsterdam, 6–7 June 2013), hosted be the Netherlands and organized with the support of the Governments of the Netherlands and Switzerland and the Stockholm International Water Institute, was the first activity organized under this programme area. The aim of the workshop was to initiate a discussion on the approaches to and methods of quantifying the economic, environmental, social and political benefits of transboundary water cooperation. It also provided a platform for a discussion of the substance and format of the policy guidance note, which will promote further transboundary water cooperation.
- 3. A first draft of the guidance note will subsequently be elaborated as a background document for the workshop on gathering and sharing experience in identifying, quantifying and communicating the benefits of transboundary water cooperation to be organized in May 2014.
- 4. The Working Group is invited to:
- (a) Review the present document and provide comments on the approach, as well as on the draft schedule for the development of the policy guidance note;
- (b) Discuss the content of the draft annotated outline (annex) and suggest experts who could contribute to the drafting of the policy guidance note;
- (c) Suggest possible case studies to be considered for the further development of the policy guidance note, to be presented at the next workshop on sharing experience in quantifying the benefits of transboundary water cooperation.

II. Draft outline of the guidance note on the benefits of transboundary water cooperation

- 5. The proposed draft annotated outline of the policy guidance note on identifying, quantifying and communicating the benefits of transboundary water cooperation (annex) consists of five parts:
 - (a) Executive summary;
 - (b) Setting the context;

¹ More information on the workshop, including workshop documents and presentations, is available from http://www.unece.org/env/water/1st_workshop_benefits_cooperation.html.

- (c) Identifying the benefits of transboundary water cooperation;
- (d) Quantifying the benefits of transboundary water cooperation;
- (e) Maximizing the policy impact of benefits' assessment.
- 6. The aim of the policy guidance note will be to support Governments and other actors in realizing the potential of transboundary water cooperation, by providing an overview of the full set of potential benefits that can be exploited, an introduction to how the specific benefits can be assessed, and guidance on how the assessment of benefits can be integrated into policy processes.
- 7. The target audience will be decision makers in ministries responsible for environment, water and foreign affairs, joint bodies, as well as development cooperation partners and national stakeholders (including relevant business and civil society organizations). Therefore, the total length of the policy guidance note should not exceed a maximum of 30 pages. A number of case studies will illustrate the policy guidance note, providing information on concrete cases of transboundary water cooperation.
- 8. A draft annotated outline of the policy guidance note on identifying, quantifying and communicating the benefits of transboundary water cooperation (annex) sets out suggested contents for the guidance. This outline is intended to provide an initial basis for discussion, but is expected to evolve according to the outcomes of the future activities on benefits and the comments received. In particular, the suggested typology of benefits of transboundary water cooperation included in the outline will have to reflect the realities of cooperation, to be discussed through case studies during the future workshop on sharing experiences in quantifying the benefits of transboundary cooperation.

III. Organization of work

- 9. Following the Expert Scoping Workshop, which held in June 2013, the group of experts, which includes academics, some experts from Governments and joint bodies, as well as international organizations, has been invited to provide comments and contributions to the draft the policy guidance note.
- 10. The work on quantifying benefits implemented under the ECE Water Convention, including the draft annotated outline of the policy guidance note, will also be presented during World Water Week seminar, "Tools to Improve Cooperation and Dialogue in River Basins" (Stockholm, 3 September 2013), co-organized by the Water Footprint Network, ECE, the German Agency for International Cooperation and the Stockholm International Water Institute. Experts at the seminar will be invited to provide comments and contributions to the guidance.
- 11. In addition to the experts from the scoping workshop and participants at the Stockholm seminar, the Working Group on Integrated Water Resources Management will be invited to provide contribution to the development of the draft policy guidance note.
- 12. A call for proposals for case studies will be issued prior to the workshop on sharing experiences in quantifying the benefits of transboundary cooperation. The workshop will be organized in May 2014. Some of the case studies presented will be reflected in the policy guidance note.
- 13. Progress in developing the guidance will be regularly reviewed by the Working Group.

IV. Draft schedule for the development of the policy guidance note

Date	Activity
Mid-July 2013	Preparation of a draft annotated outline of the policy guidance note
3 September 2013	Presentation and discussion at the seminar, "Tools to Improve Cooperation and Dialogue in River Basins" (during Stockholm World Water Week)
25 September 2013	Presentation and discussion at the eighth meeting of the Working Group on Integrated Water Resources Management and call for comments and commitments to contribute
Mid-October 2013	Revision of the draft annotated outline, taking into account the comments received from the participants of the Amsterdam scoping workshop, the Stockholm seminar and the Working Group on Integrated Water Resources Management
October–December 2013	Authors to provide their draft contributions
January 2014	Call for case studies on identifying, quantifying and communicating the benefits of cooperation to be presented at the workshop on sharing experiences in transboundary water cooperation
March 2014	First draft of the policy guidance note
22–23 May 2014	Workshop on gathering and sharing experiences
June 2014	Presentation of the progress in the activity on the benefits of transboundary water cooperation and a first draft of the policy guidance note at the ninth meeting of the Working Group on Integrated Water Resources Management
July 2014	Second draft of the policy guidance note, incorporating experiences gathered at the workshop
November 2014	Organization of a project-related expert meeting
March 2015	Third draft of the policy guidance note, incorporating the conclusions of the expert meeting
July 2015	Presentation of the draft policy guidance document at the tenth meeting of the Working Group on Integrated Water Resources Management
September 2015	Finalization of the document
October 2015	Translation, layout, printing
November 2015, Hungary	Presentation of the finalized guidance to the Meeting of the Parties to the Water Convention at its seventh session

Annex

Policy guidance note on identifying, quantifying and communicating the benefits of transboundary water cooperation

Draft annotated outline^a

Executive Summary

The Executive Summary will present the key messages of the policy guidance note on identifying, quantifying and communicating the benefits of transboundary water cooperation (Policy Guidance Note). It will be the basis for a stand-alone publication targeted to high-level policymakers as well as a slide show.

Target length of the Executive Summary: four pages.

Target length of the main text, excluding the Executive Summary: 25 pages.

Chapter 1 Setting the context

Chapter 1 will include four sections.

Target length of the chapter: four-and-a-half pages.

Section 1.1 will briefly present the aim of the Policy Guidance Note and will identify its target audience.

Target length of this section: a half page.

- (a) Transboundary water cooperation can lead to increased economic growth, human well-being and environmental sustainability (including examples);
- (b) The aim of the Policy Guidance Note is to support Governments and other actors in realizing the potential of transboundary water cooperation, by providing an overview of the full set of potential benefits that can be exploited, an introduction to how the specific benefits can be assessed and guidance on how the assessment of benefits can be integrated into policy processes;
- (c) The target audience is decision makers in ministries responsible for environment, water and foreign affairs, joint bodies, as well as development cooperation partners and national stakeholders (including relevant business and civil society organizations).

^a This draft annotated outline has been developed by a consultant as an outcome of the Expert Scoping Workshop (Amsterdam, 6-7 June 2013).

Section 1.2 will present the rationale for the Policy Guidance Note.

Target length of this section: a half page.

Key points include:

- (a) Transboundary water cooperation has been increasing, but some countries are still facing difficulties in cooperating, and part of the reason for the failure to cooperate is the lack of recognition of the benefits of cooperation;
- (b) Even those countries that cooperate often do it only on narrow issues. There is scope for increasing cooperation by moving from "sharing water" (i.e., allocating water resources among riparian States) to "sharing the benefits of water" (i.e., managing water resources to achieve the maximum benefit and then allocating those benefits among riparian States, including through compensation mechanisms);
- (c) There is even greater scope for increasing cooperation by moving from "sharing the benefits of water" to "realizing the broader benefits of water cooperation", which include macroeconomic and security benefits beyond the water sector;
- (d) Identifying and quantifying (to the extent possible) the full range of benefits will facilitate an increase in cooperation and thus the realization of the potential benefits;
- (e) Identifying and quantifying benefits alone will not be enough. The process of identifying and quantifying the benefits and inserting those inputs into a policy process (communicating the benefits of cooperation) is equally important, if not more;
- (f) Some countries, development cooperation agencies and international organizations already have experience in identifying, quantifying and communicating transboundary water cooperation benefits, but many of those experiences have not been documented or made widely available.

Section 1.3 will briefly present the scope and institutional background of the Policy Guidance Note.

Target length of this section: one page (including the box).

Key points include:

- (a) The Policy Guidance Note is being developed in the framework of the ECE Water Convention, as mandated by the Meeting of the Parties at its sixth session (Rome, 28–30 November 2012) as part of the 2013–2015 programme of work for the Convention (ECE/MP.WAT/37/Add.1, forthcoming);
- (b) With the globalization of the Water Convention, the Policy Guidance Note targets a global audience, and draws on expertise and case studies from around the world;
- (c) The Policy Guidance Note is the result of an extended process of information gathering, reflection and consultation;
- (d) The Policy Guidance Note provides arguments for acceding to and implementing the ECE Water Convention.

This section could include a box introducing the Water Convention. The rationale for this box is that the Policy Guidance Note will also be disseminated to countries that are not fully familiar with the Convention, but which may consider acceding to it.

Section 1.4 will introduce the concept and realities of transboundary water cooperation.

Target length of this section: two-and-a-half pages (including the box).

Key aspects to be discussed include:

- (a) What transboundary waters are included within the scope of the Policy Guidance Note i.e., rivers, lakes and aquifers, and impacts on coastal areas;
- (b) What transboundary water management is and how transboundary water management has evolved in recent decades (including examples);
- (c) What transboundary water cooperation is according to the ECE Water Convention and the United Nations Convention on the Law of the Non-navigational Uses of International Watercourses, including cooperation options, levels and degrees of cooperation, cooperation and conflict, cooperation space limited by the institutional setting;
- (d) Sustaining cooperation: enforceability of legal instruments, the key role of self-enforcement (benefits should outweigh costs), minimizing the costs of cooperation (cost of actions and transaction costs of cooperation), maximizing the benefits of cooperation, potential compensations;
- (e) How transboundary water cooperation takes place an overview of current legal, policy and institutional frameworks (e.g., bilateral and multilateral agreements, policy processes, joint bodies) and discussion of domestic dynamics around transboundary water cooperation;
- (f) What the success factors for transboundary water cooperation have been (including enabling environment factors, such as interministerial coordination);
- (g) What the role of benefits' identification, assessment and communication in transboundary water cooperation has been in practice.

This section will include a box on what benefit sharing is (between countries) and how to get there: benefit-sharing steps, benefit-sharing mechanisms (tradable water rights, side payments, joint infrastructure investments), DOs and DON'Ts, strong institutional requirements.

Chapter 2

Identifying the benefits of transboundary water cooperation

This chapter will include three sections.

Target length of the chapter: five-and-a-half pages.

Section 2.1 will briefly discuss the need to identify benefits.

Target length of this section: one page.

- (a) The identification and assessment of benefits can contribute to achieving greater levels of cooperation, even if they are other factors at play;
- (b) The identification and assessment of benefits are important to attract financial resources (e.g., from private sources, bilateral development cooperation and multilateral development cooperation, such as the Global Environment Facility) that may be needed to kick-start and sustain the cooperation process, as well as to implement some actions;

- (c) It is important to identify the full range of benefits, even if some of the benefits cannot be quantified or otherwise assessed;
- (d) The identification of benefits will make it possible to define a "benefit-shed" (i.e., the space where benefits are generated), which may be a useful unit of analysis within the cooperation policy process.

This section will include a box with examples on how the identification of benefits has contributed to enhanced cooperation.

Section 2.2 will present a typology of benefits.

Target length of this section: three pages.

- (a) Transboundary water cooperation can potentially generate many benefits;
- (b) There are some "traditional" benefits that are well known among the water policy community such as those generated by reduced water pollution (e.g., health and biodiversity benefits), microeconomic impacts of improved water allocation (e.g., agricultural productivity) or the development of large infrastructure (for water storage, flood control or hydropower generation);
- (c) There are some other benefits that are less well known such as those related to reduced political tensions, opening opportunities for cooperation in other areas (such as trade liberalization) or the macroeconomic impacts of improved water management facilitated by cooperation;
- (d) A typology of benefits can help interested parties in the process of identifying benefits;
- (e) The section will present one possible typology of benefits, inspired by Sadoff and Grey^b (see table below), but other typologies could be developed. This typology will be further elaborated considering the case studies of transboundary cooperation that will be presented at the workshop on sharing experience to be organized in May 2014.

Category of benefits	Specific benefits
Type I	
Benefits for the transboundary waters	Avoided habitat degradation and biodiversity loss (i.e., non-use value of
Environmental benefits	improved river ecosystem health)
Type II	
Benefits from the transboundary waters	
(a) Improved human satisfaction and health	Improved satisfaction from increased recreational opportunities and protection of cultural values
	Improved human health (reduced incidence of water-borne diseases a consequence of improved water quality)

b Claudia Sadoff and David Grey, "Beyond the river: the benefits of cooperation on international rivers", *Water Policy*, vol. 4 (2002), pp. 389–403.

Category of benefits	Specific benefits	
(b) Direct (micro)economic benefits/economic productivity benefits Reduced costs and improved benefits as a consequence of managing water better (e.g., improved water allocation from integrated water planning at the transboundary scale)	Increased economic production (aquaculture, irrigated agriculture, hydropower generation, industrial production, nature-based tourism) Reduced cost of carrying out productive activities (avoided costs of supplying water from more expensive sources, lower cost of treating raw water for human consumption and economic uses, lower cost of energy inputs from using hydropower, savings from using river transport) Reduced risks: avoided human and economic losses from floods, avoided catastrophic losses from drought (e.g. loss of perennial crops), avoided food shortages, avoided energy shortages	
	Increased value of property thanks to improvements in riparian ecosystems	
Type III		
Benefits thanks to the transboundary waters	Reduced cost of managing water (e.g., from more efficient water monitoring, more efficient responses to pollution accidents, etc.)	
Reduced costs and improved	Reduced cost of complying with international treaties	
benefits as a consequence of building trust between	Reduced defence spending and avoided costs of dispute/military conflict	
countries	Benefits gained from cooperating in other policy areas after trust has been built in the water area	
Type IV		
Benefits beyond the transboundary waters	Economic growth, employment generation and poverty reduction, generated by more investment across borders and more open markets for goods, services and labour, which are in turn generated by the combination of the microeconomic benefits of managing water better (Type II benefits) and the improved economic climate generated by the improved trust between countries (Type III benefits)	
Indirect (macro)economic benefit		

This section could present a box with several examples of benefits generated through cooperation in different transboundary basins.

Section 2.3 will discuss the challenges and opportunities of benefits' identification.

Target length of this section: one page.

- (a) Variability in the basin (e.g., in terms of ecosystems or productive structure) is a key source of benefits (backed by example for the Murray Darling Basin);
- (b) There is risk and uncertainty involved in the identification (as well as in the assessment) of benefits of cooperation;
- (c) The identification of benefits may be an extended process some benefits may be identified in a first phase leading to a first round of (enhanced) cooperation, which in turn may lead to further efforts to identify additional benefits;
- (d) It is important to identify not just the benefits, but also the beneficiaries in order to inform the political processes (coalition formation) to achieve cooperation, including the development of options to compensate the losers and this applies both at the transboundary (international) and national levels.

This section will include a box with examples of benefits' identification as a process (e.g., Africa's Great Lakes: from cooperation in hydropower to broader transboundary water cooperation).

Chapter 3

Quantifying the benefits of transboundary water cooperation

This chapter will include five sections.

Target length of the chapter: nine pages.

Section 3.1 will discuss how to approach the quantification of benefits.

Target length of this section: one-and-a-half pages.

Key points include:

- (a) It is not always possible, or desirable, to quantify the benefits of transboundary water cooperation. Benefits' assessment may include qualitative assessment, physical quantification and economic valuation (market and non-market);
- (b) Benefits-assessment efforts should focus on the outcomes of established cooperation;
- (c) Benefits-assessment efforts need to start by establishing a baseline, and should be careful to avoid double counting;
- (d) Benefits-assessment efforts need to take into account that some of the benefits of transboundary water cooperation will be generated over long time scales, and they should try to quantify those benefits as well;
- (e) Benefits' assessment can have different levels of ambition from rough-and-ready estimates to sophisticated, data-hungry and costly methodologies. Efforts to quantify benefits need to be commensurate with the intended use of the results in some cases some rough estimates will suffice, in others, good quality studies will need to be developed;
- (f) As is the case with benefits' identification, benefits' assessment can be thought of as a long-term process of improvement. As new policy needs are expressed and new benefits are identified, new benefits-assessment efforts will need to be undertaken. (Include a graph illustrating how benefits accumulate in a non-linear fashion over the long term.)

Section 3.2 will discuss the state of play for quantifying the benefits for the transboundary waters of transboundary water cooperation (subject to the final definition of the typology of benefits in chapter 2).

Target length of this section: one-and-a-half pages.

- (a) The extent to which environmental benefits can be quantified with existing methodologies: potential and limitations (including data requirements);
 - (b) Examples of application in a transboundary context;
 - (c) Guidance on how to commission studies;
 - (d) Guidance on how to interpret and make use of the results.

Section 3.3 will discuss the state of play for quantifying the benefits from the transboundary waters of transboundary water cooperation (subject to the final definition of the typology of benefits in chapter 2).

Target length of this section: two pages.

Key points include:

- (a) Extent to which benefits from improved human satisfaction and health and benefits from direct (micro)economic gains can be quantified with existing methodologies: potential and limitations (including data requirements);
 - (b) Examples of application in a transboundary context;
 - (c) Guidance on how to commission studies;
 - (d) Guidance on how to interpret and make use of the results.

Section 3.4 will discuss the state of play for assessing the benefits thanks to the transboundary waters of transboundary water cooperation (subject to the final definition of the typology of benefits in chapter 2)

Target length of this section: one-and-a-half pages.

Key points include:

- (a) Extent to which trust related benefits can be quantified with existing methodologies: potential and limitations (including data requirements);
 - (b) Examples of application in a transboundary context;
 - (c) Guidance on how to commission studies;
 - (d) Guidance on how to interpret and make use of the results

Section 3.5 will discuss the state of play for quantifying the benefits beyond the transboundary waters of transboundary water cooperation (subject to the final definition of the typology of benefits in chapter 2)

Target length of this section: one-and-a-half pages.

Key points include:

- (a) Extent to which macroeconomic benefits can be quantified with existing methodologies: potential and limitations (including data requirements);
 - (b) Examples of application in a transboundary context;
 - (c) Guidance on how to commission studies;
 - (d) Guidance on how to interpret and make use of the results.

Chapter 4

Maximizing the policy impact of benefits assessment

This chapter will include three sections.

Target length of the chapter: five-and-a-half pages.

Section 4.1 will discuss how the benefits' assessment needs to be tied to existing policy processes.

Target length of the section: two-and-a-half pages (including the boxes).

Key points include:

- (a) To be effective, benefits' assessment needs to be tied to an existing policy process on transboundary water cooperation. Such policy processes may be at different stages of maturity from informal talks to a well-established framework, including legal agreements, institutional structures (such as joint bodies) and action plans;
- (b) The policy process (and its institutional setting) will drive the ambition and characteristics of the benefits' assessment. It can express an explicit demand and establish an explicit mandate, and will determine the opportunities to include the benefits' assessment results into the decision-making process. The needs and characteristics of the policy process will drive the selection of methodologies, the involvement of stakeholders (policymakers, experts, beneficiaries) in the benefits-assessment efforts, and the strategies for communicating the results;
- (c) The benefits' assessment can support the policy process in different ways: establishing a credible and commonly accepted baseline, providing commonly accepted estimates of benefits that can be generated under different cooperation scenarios, informing the design of incentive and compensation schemes, contributing to monitoring the generation of benefits and informing the need to redesign the institutional setting for cooperation;
- (d) The benefits' assessment can best support the policy process through an interactive and intersectoral process as part of a transboundary policy dialogue.

The section will include:

- (a) A box with examples of how benefits-assessment results have been used to promote transboundary water cooperation;
- (b) A box on the concept of National Policy Dialogues and how this concept could be translated to a transboundary context.

Section 4.2 will discuss the benefits-assessment framework.

Target length of the section: one-and-a-half pages.

- (a) Identifying, quantifying and communicating the benefits of transboundary water cooperation are part of a "benefits-assessment framework" involving several steps:
 - (i) Identification of the full range of benefits;
 - (ii) Prioritization of benefits to be quantified, given their potential magnitude and other policy-relevant criteria;
 - (iii) Assessment of the magnitude of the benefits and, where possible, their quantification and economic valuation;
 - (iv) Integration of the assessment results in the policy process of transboundary water cooperation (through communication efforts for awareness-raising, advocacy, and policy development);
- (b) Identifying, quantifying and communicating the benefits of transboundary water cooperation is not a one-off effort. The "benefits-assessment framework" is a cycle that will have to be repeated and improved over time to respond to policy demands;
- (c) The benefits' assessment will incur costs (depending on ambition) and require financing. The benefits (in terms of improving the quality and effectiveness of the

policy process) of an adequately-designed benefits' assessment (in terms of matching the level of ambition with policy needs) will in many cases largely outweigh its costs.

This section will include a box on how the results of benefits' assessment can be used for scenario analysis.

Section 4.3 will discuss how to communicate the results of benefits' assessment.

Target length of the section: one-and-a-half pages.

Key points include:

- (a) The results of benefits' assessment can be used for multiple purposes: awareness-raising (among key stakeholders and the general public), advocacy policy development, negotiation and compensation. The communication of the benefits-assessment results needs to be tailored to the specific purpose;
- (b) Guidance for communicating the results for awareness-raising (including DOs and DON'Ts, as well as at least one example);
- (c) Guidance for communicating the results for advocacy (including DOs and DON'Ts, as well as at least one example);
- (d) Guidance for communicating the results for policy development (including DOs and DON'Ts, as well as at least one example);
- (e) Guidance for communicating the results for negotiation (including DOs and DON'Ts, as well as at least one example);
- (f) Guidance for communicating the results for compensation (including DOs and DON'Ts, as well as at least one example).

Technical annexes

No specific technical annexes are envisioned at this stage. However, some technical annexes could be developed to complement the main text, depending on the material gathered and the demand expressed throughout the process of developing the Policy Guidance Note.