



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

**Working Group on Integrated Water  
Resources Management**

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Item 6 of the provisional agenda

**Quantifying the benefits of transboundary cooperation**

WG.1/2014/INF.3

**DRAFT POLICY GUIDANCE NOTE ON IDENTIFYING, ASSESSING AND  
COMMUNICATING THE BENEFITS OF TRANSBOUNDARY WATER COOPERATION  
“COUNTING OUR GAINS”**

**Submitted by the secretariat in cooperation with Estonia as lead country  
for activity 3 “Quantifying the benefits of transboundary cooperation”**

**I. BACKGROUND AND INTRODUCTION**

Recognizing that transboundary water cooperation can be encouraged and facilitated by broadening the perception of its potential benefits, Parties to the UNECE Water Convention decided to develop by 2015 a Policy Guidance Note on how the full breadth of cooperative benefits might be identified, assessed and adequately communicated, together with the costs of inaction. The UNECE Water Convention indeed promotes a holistic approach to cooperation, looking at environmental, social and economic implications of water use, and the whole range of benefits should be considered.

The “Expert Scoping Workshop<sup>1</sup> on Quantifying the Benefits of Transboundary Water Cooperation”, held in Amsterdam on 6-7 June 2013, initiated a discussion on the approaches and methods of identifying, quantifying and communicating different types of benefits of transboundary water cooperation. It recognized that cooperation on transboundary waters often results in a wide range of benefits reaching well beyond the water sector. A call for case studies was launched in January 2014 to collect concrete examples of cooperative benefits from all over the world and the workshop<sup>2</sup> “Counting our gains: Sharing experiences on identifying, assessing and communicating the benefits of transboundary water cooperation”, held in Geneva on 22-23 May, allowed for a broad exchange of experiences on how the identification, assessment and communication of the different types of benefits of transboundary water cooperation, such as economic benefits within and beyond the basin, environmental, social and geopolitical benefits, can support transboundary water cooperation processes.

The first Draft Policy Guidance Note on identifying, assessing and communicating the benefits of transboundary water cooperation “Counting our gains” presented in this document was developed based on the draft annotated outline (building on the outcomes of the Expert Scoping Workshop)

<sup>1</sup> More information available at: [www.unece.org/env/water/1st\\_workshop\\_benefits\\_cooperation.html](http://www.unece.org/env/water/1st_workshop_benefits_cooperation.html)

<sup>2</sup> More information available at: [www.unece.org/env/water/workshop\\_benefits\\_cooperation\\_2014.html](http://www.unece.org/env/water/workshop_benefits_cooperation_2014.html)

circulated in January 2014, the experts' comments received afterwards, a background document<sup>3</sup> on economic and environmental benefits of transboundary water cooperation, as well as the case studies received.

The Policy Guidance Note on identifying, assessing and communicating the benefits of transboundary water cooperation aims to support governments and other actors in realizing the potential benefits of transboundary water cooperation. Its primary target audience is decision-makers at the level of water directors which might develop benefits assessment processes and need to convince top decision-makers (Ministers of water, finance or foreign affairs).

The below first Draft Policy Guidance Note is work in progress and will experience substantial additions and revisions to reflect the main messages and recommendations of the workshop "Counting our gains" (such inputs have not been reflected in the draft document yet) and experts' inputs received after the meeting of the Working Group on Integrated Water Resources Management. Recommendations from the workshop "Counting our gains" include, amongst other issues: the need to incorporate concrete examples, to develop additional background materials on the (geo)political benefits of transboundary water cooperation and the necessity to include an additional section on "How to use" the document. An expert workshop on benefits of transboundary water cooperation, focusing on the (geo)political benefits of transboundary water cooperation, will be organized in January 2015.

The draft Policy Guidance Note is presented in this document for review by the Working Group on Integrated Water Resources Management. The Working Group is invited to:

- a. Provide comments on the draft Policy Guidance Note by 25 July 2014
- b. Submit case studies on the identification, assessment and communication of benefits of transboundary water cooperation in transboundary basins/aquifers by 25 July 2014.

## **II. DRAFT POLICY GUIDANCE NOTE ON IDENTIFYING, ASSESSING AND COMMUNICATING THE BENEFITS OF TRANSBOUNDARY WATER COOPERATION**

### **Executive Summary**

The Executive Summary will be prepared for the second draft of the Policy Guidance Note. The Executive Summary will present the key messages of the Policy Guidance Note on identifying, quantifying and communicating the benefits of transboundary water cooperation. 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 Policy Guidance Note (main text), excluding the Executive Summary: 25 pages. }*

### **Chapter 1 - Setting the stage for this Policy Guidance Note**

*{Chapter 1 will include 4 sections. Target length of the chapter: four pages}*

#### **Section 1.1 - Aim**

1. Transboundary water cooperation (TWC) has the potential to generate many and significant benefits for cooperating countries. Those benefits can be realised by accelerating economic growth,

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<sup>3</sup> Available at:

[www.unece.org/fileadmin/DAM/env/water/meetings/Benefits\\_cooperation/May\\_2014/Background\\_report\\_\\_Eco\\_EnvBenefitsTWCFinal\\_J.Fisher\\_2014.05.15.pdf](http://www.unece.org/fileadmin/DAM/env/water/meetings/Benefits_cooperation/May_2014/Background_report__Eco_EnvBenefitsTWCFinal_J.Fisher_2014.05.15.pdf)

increasing human well-being, enhancing environmental sustainability and contributing to political stability.

2. This Policy Guidance Note aims to support governments and other actors in realizing the potential benefits of transboundary water cooperation. To do so, it provides an overview of the full set of potential benefits that can be generated by transboundary water cooperation, an introduction to how the specific benefits can be assessed, and guidance on how the assessment of benefits can be integrated into policy processes.

3. The primary target audience of this Policy Guidance Note is decision-makers in ministries responsible for environment, water and foreign affairs, as well as joint bodies for transboundary water management. This Policy Guidance Note is also relevant for development cooperation partners and national stakeholders (including relevant business and civil society organizations).

### ***Section 1.2 - Rationale***

4. Transboundary water cooperation has been increasing, but some countries are still facing difficulties in cooperating. Part of the reason for the failure to cooperate is the lack of recognition of the benefits of cooperation.

5. Even those countries that cooperate often do it only on narrow issues. There is scope for increasing transboundary water cooperation from quantity or quality issues to a broader set of issues, and 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). There is even greater scope for increasing cooperation by moving from “sharing the benefits of water” to “realizing the broader benefits of water cooperation”.

6. A systematic process of identifying all the benefits of transboundary water cooperation will help to uncover previously overlooked benefits. By itself, this may already strengthen the case for cooperation. A simple and practical framework is needed to support the identification of TWC benefits.

7. Assessments of the benefits of TWC cooperation will further strengthen the case for cooperation. The range of benefits may be broad, but their relative importance will vary from case to case. There is already long-standing technical guidance on how to assess some types of benefits generated by TWC; although this is not the case for other types of benefits. At the same time, there is little available guidance on how to approach the assessment of benefits from a policymaker’s perspective.

8. Identifying and assessing benefits will not be enough, however. The process of identifying and assessing TWC benefits and inserting those inputs into a policy process is equally important, if not more. Guidance is also needed on how to communicating the benefits of cooperation, if policy processes are to be effectively influenced by the evidence on the benefits of TWC, whatever its level of detail.

9. The process of identifying, assessing and communicating TWC benefits can build on existing experiences. 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. This Policy Guidance Note tries, to the extent possible, to make available the lessons learned in some of those experiences.

### **Section 1.3 – Scope and institutional background**

10. The Policy Guidance Note is being developed in the framework of the Convention on the Protection and Use of Transboundary Water Courses and International Lakes (Water Convention). The development of this Policy Guidance Note was mandated by the Meeting of the Parties of the UNECE Water Convention 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).

11. This Policy Guidance Note has a global geographical scope. In 2012, the Helsinki Water Convention became a global convention. Accordingly, this Policy Guidance Note targets a global audience, and draws on expertise and case studies from around the world.

12. This Policy Guidance Note is the result of an extended process of information gathering, reflection and consultation. A scoping workshop<sup>4</sup> took place in Amsterdam in June 2013, an expert workshop<sup>5</sup> discussing case studies will take place in Geneva in May 2014, and a final workshop will take place in early 2015. Additional consultations have taken place in Stockholm, Barbados, Geneva and Quebec in September–October 2013 and May 2014.

13. This Policy Guidance Note provides additional arguments for acceding to and implementing the Water Convention. Transboundary water cooperation generates more benefits than usually recognized, even if they are sometimes difficult to assess.

#### **Box 1. The Water Convention**

The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) was adopted in Helsinki in 1992 and entered into force in 1996. Almost all countries sharing transboundary waters in the region of the United Nations Economic Commission for Europe (UNECE) are Parties to the Convention. The Water Convention strengthens transboundary water cooperation and measures for the ecologically-sound management and protection of transboundary surface waters and groundwaters. The Convention fosters the implementation of integrated water resources management, in particular the basin approach. The Water Convention recognizes that water is a cornerstone of societies and promotes a holistic approach to cooperation, looking at environmental, social and economic implications of water use.

The Water Convention requires Parties to prevent, control and reduce transboundary impact, use transboundary waters in a reasonable and equitable way and ensure their sustainable management. Parties bordering the same transboundary waters have to cooperate by entering into specific agreements and establishing joint bodies. As a framework agreement, the Convention does not replace bilateral and multilateral agreements for specific basins or aquifers; instead, it fosters their establishment and implementation, as well as further development. The Water Convention enshrines a balanced approach, based on equality and reciprocity, which offers benefits to and places similar demands on both upstream and downstream countries. In 2003, the Water Convention was amended to allow accession by countries outside the UNECE region. The amendment entered into force on 6 February 2013, turning the Water Convention into a global legal framework for transboundary water cooperation.

<sup>4</sup> More information at : [www.unece.org/env/water/1st\\_workshop\\_benefits\\_cooperation.html](http://www.unece.org/env/water/1st_workshop_benefits_cooperation.html)

<sup>5</sup> More information at : [www.unece.org/env/water/workshop\\_benefits\\_cooperation\\_2014.html](http://www.unece.org/env/water/workshop_benefits_cooperation_2014.html)

**Section 1.4 – Transboundary water cooperation**

14. In the context of this Policy Guidance Note, transboundary water cooperation is understood as cooperation between two or more countries sharing a transboundary water basin. Transboundary waters are waters that form part of a transboundary water basin and can include rivers, lakes and aquifers, as well as related coastal waters. These working definitions are closely related to the legal definitions that can be found in the text of the Water Convention as well as the United Nations Convention on the Law of Non-navigational Uses of International Watercourses (Watercourses Convention). Approximately, 40% of the world population live in transboundary basins.

15. Transboundary water cooperation is necessary to manage international waters according to the Integrated Water Resources Management (IWRM) approach. Worldwide, water policy and management are increasingly reflecting the fundamentally interconnected nature of natural resources. IWRM is a process which promotes the coordinated development and management of water, land and related resources in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. It represents an alternative to the sector-by-sector, top-down management style that has dominated in the past. IWRM implementation requires looking at basins as a management unit, looking at water demands and impacts across sectors, and encouraging the participation of all stakeholders. Transboundary water management can take different forms, such as sharing hydro-meteorological information, coordinating management measures, agreeing on water allocation mechanisms, developing joint water development projects, or implementing agreed basin-wide management plans.

16. Transboundary water cooperation is a process and may evolve from incipient stages (characterized by technical-level exchanges and political talks) to medium stages where agreements of limited scope (e.g. navigational uses, pollution control standards, or water allocation) are signed, and finally to advanced stages where joint action (of different levels of depth) is taken. The benefits of cooperation are likely to evolve over time as cooperation opens up new options, including greater capacity to adapt to climate change. However, too often transboundary water cooperation is only pursued when a disaster strikes (such as major floods, droughts or pollution episodes) and the potential benefits of stronger cooperation remain unexploited. Some cooperation processes may remain stuck at low levels over decades, while others may evolve more rapidly.

17. The ambition of transboundary water cooperation has increased over time, but sustaining it is challenging. The ambition of the international community for TWC has moved from reaping “easy” win-wins through bilateral actions (e.g. information sharing, coordination of actions) to joint actions that make every party a winner (e.g. joint projects), then to agreements that in order to reap the largest benefit overall may require one party to lose and thus need to be accompanied by compensation mechanisms (sharing the benefits of water). The increasing ambition of TWC brings increasing demands on the mechanisms that sustain the cooperation. Legal instruments need to include enforcement and dispute resolution mechanisms. But in a situation where large pay-offs are at stage and any party can denounce (with due notice) the cooperation agreement, it is increasingly necessary that cooperation agreements are designed to be self-enforcing. This requires a better knowledge of the benefits that each party can derive from cooperation (so that every party can be satisfied that it gains from continuing to cooperate more than it can gain by abandoning cooperation).

18. Transboundary water cooperation has generated different institutional frameworks. Ideally, the legal framework governing transboundary water cooperation would be a multilateral agreement involving all relevant countries – although in practice many transboundary basins are characterized by multiple bilateral agreements and missing parties. The nature of the joint bodies established for managing transboundary waters varies widely, from commissions that meet rarely and have limited powers and secretariat support, to large basin agencies with large staff numbers and responsibilities that include the development and operation of major infrastructure. The institutional arrangement will delimit the range of benefits of transboundary water management that can be exploited, but large benefits can be exploited from relatively modest institutional arrangements – such as those in the Danube River Basin.

19. Transboundary water cooperation is influenced by domestic dynamics. No party (country) that engages in transboundary cooperation is a monolithic entity, rather they are a composite of domestic actors and interests. Some of those domestic actors will gain more from transboundary cooperation than others. It is important to understand the domestic distribution of the benefits and costs of TWC in order to identify supporters as well as the need to design domestic compensation mechanisms to minimise opposition. TWC discussion needs to be informed by and inform domestic inter-sectoral policy design.

## **Chapter 2 – A policy-focused benefits assessment framework**

*{This chapter will include three sections. Target length of the chapter: three pages}*

### **Section 2.1 – Tying benefit assessments to policy processes**

20. To be effective, any TWC benefit assessment needs to be tied to an existing TWC policy process. Effective, in this context, means that the benefit assessment has a positive impact in the process of TWC. If there is no existing policy process in place at all (however weak), a rapid exercise of benefit identification and assessment may be useful for awareness-raising and advocacy, but a fully-fledged assessment would be difficult to implement and is unlikely to generate significant impacts. The demand and mandate for the TWC benefit assessment should be explicitly articulated in the TWC policy process – for example as part of a Transboundary Diagnostic Analysis. This Policy Guidance Note does not discourage independent exercises, such as those undertaken for academic research purposes. Those exercises are useful, both in terms of developing methodologies and increasing awareness of the benefits of TWC. Those exercises are, however, unlikely to be very effective in broadening and deepening transboundary water cooperation – which is to be expected as that is not, generally, their intended objective.

21. A TWC benefit assessment needs to match the level of maturity of the TWC policy process that it intends to support. TWC policy processes can be at different levels of maturity. Even when no formal TWC policy process is in place, informal talks may be regarded as incipient transboundary water cooperation. At the other end, a TWC policy process may be characterized by a well-established formal framework that includes legal agreements, institutional structures (such as joint bodies), and joint action programmes. Different TWC policy processes will offer different opportunities for including the results of a TWC benefit assessment in the TWC decision-making process. The characteristics of the TWC policy process should drive the level of ambition of the TWC

benefit assessment, the selection of methodologies, the involvement of stakeholders (policymakers, experts, beneficiaries), and the strategies for communicating the results. More mature stages of cooperation require greater supporting evidence. Table 2.1 provides a stylised description of the stages of development of a TWC policy process as well as the associated needs in terms of TWC benefit assessment.

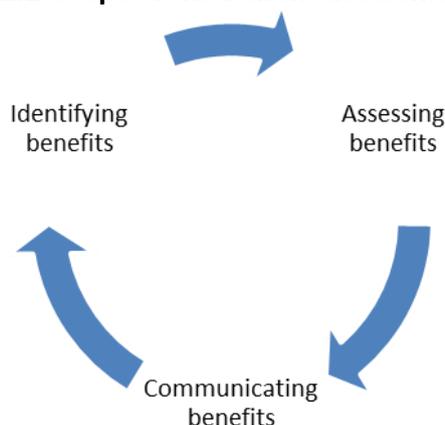
**Table 2.1 Matching benefits assessments to policy processes**

Stage of development of the TWC policy process	Needs of the TWC policy process	Focus of the TWC benefit assessment
Initial stage (e.g. basins without international agreement or transboundary coordination body)	Launch of the cooperation process, supported by awareness raising on the need to cooperate	Identification of the full range of the benefits of cooperation
Medium stage (e.g. basins with international agreement, but without coordination body)	Consolidation of the cooperation process through the implementation of basic cooperation initiatives (e.g. information sharing)	Broad assessment of the full range of benefits of cooperation (including cost of non-cooperation)
Advanced stage (e.g. basins with international agreement and coordination body, but without basin plan)	Realisation of the benefits of cooperation through the implementation of advanced cooperation measures (e.g. infrastructure solutions)	Assessment of the benefits of independent national projects as well as joint projects
Very advanced stage (e.g. basins with formal agreement, coordination body, and basin plan)	Maximisation of the benefits of cooperation, including through the development of compensation schemes	Assessment of the benefits of integrated management solutions Ex post analysis of outcomes compared with non-cooperation

### **Section 2.2 – Benefits-assessment framework**

22. TWC benefit assessment is a cyclical process. The process includes three major steps: identifying, assessing, and communicating the benefits of transboundary water cooperation (see figure 2.2). The focus of the TWC benefit assessment (see table 2.1) will determine the level of detail of each of those steps. TWC benefit assessment should not be seen as one-off effort, but rather as a cycle that will have to be repeated and improved over time to respond to policy demands.

**Figure 2.2 Steps of the benefit assessment cycle**

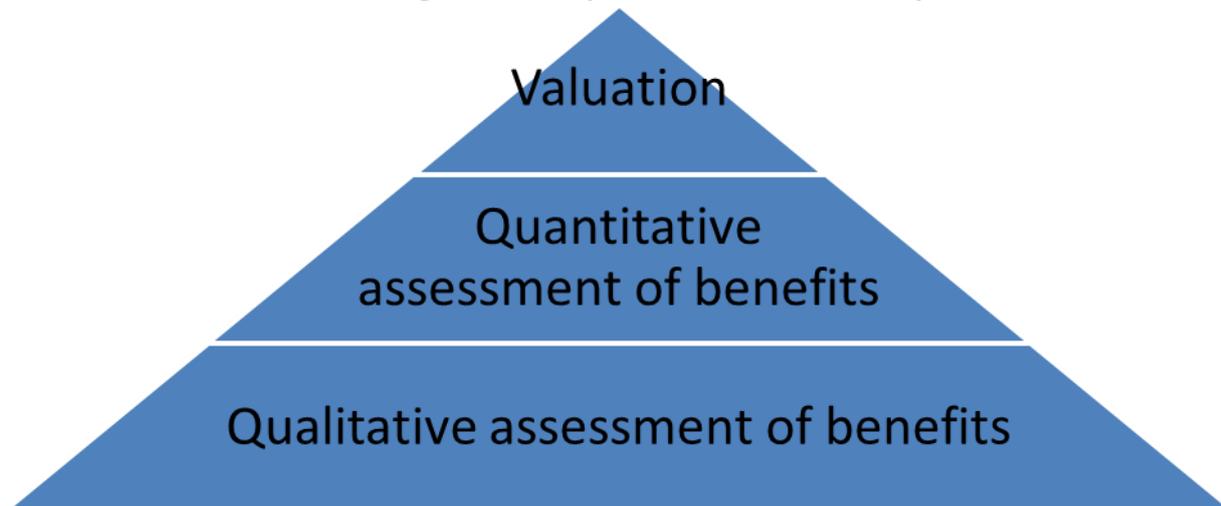


23. Step 1. Identification of benefits and beneficiaries. It is important to ensure that all relevant benefits are identified. This will vary according to the cooperation stage. For example, while for cooperation in the initial stage, it may suffice to highlight as one of the benefits “lives and property saved thanks to the improved flood management”, for a very advanced level of cooperation it would be necessary to identify the detailed benefits of each measure (whether soft or hard) that is being considered. The identified benefits should undergo a “screening” to select for assessment the most important benefits, taking into account their potential magnitude and other policy-relevant criteria.

24. Step 2. Assessment. The nature of the “assessment step” will also vary according to the cooperation stage. All the benefits should undergo at least a qualitative assessment. Many, but not all, the benefits can undergo a quantitative assessment. Only in some cases the monetary valuation of the benefits can be assessed (c.f. figure 2.3). In recent decades, the discipline of environmental economics has developed new methodologies that allow attaching economic values to an increasingly large range of benefits. However, the use of some of those methodologies can be contested in certain policy processes. The aim of the assessment step is to contribute to advance the TWC process, and this should guide the ambition of the assessments of individual benefits and the selection of assessment methodologies.

25. Step 3. Communication. The final step is the integration of the assessment results in the TWC policy process through communication efforts for awareness-raising, advocacy, and policy development.

**Figure 2.3 Scope of the assessment step**



26. TWC benefit assessment is an investment that requires funding but also brings significant benefits. A TWC benefit assessment will incur “establishment costs” (to launch and establish the different elements of the process) as well as “recurrent costs” (to keep producing results). The costs will depend on the ambition of the benefit assessment. The costs should be preferably funded on a cost sharing basis by the cooperating parties or as part of a technical programme of the joint body (if it exists). The benefits (in terms of improving the quality and effectiveness of the policy process) of a well-designed TWC benefit assessment is expected to largely outweigh its costs, as long as it is designed to match the needs of the policy process.

**Section 2.3 – From benefit assessment to benefit sharing**

*{Section to be developed. This section will discuss what is benefits-sharing and how it links with the benefits assessment framework. Target length of the section: one page}*

Key points include:

- (a) What is benefit sharing
- (b) Benefit-sharing mechanisms (tradable water rights, side payments, joint infrastructure investments)
- (c) Benefit sharing requires strong institutional arrangements
- (d) To what extent benefit sharing is informed by identification, quantification, and communication of benefits.
- (e) How the benefits assessment framework can support benefit sharing

**Chapter 3 - Identifying the benefits of transboundary water cooperation**

*{This chapter will include three sections. Target length of the chapter: five pages}*

**Section 3.1 – Why do we need to identify benefits**

27. The identification of a comprehensive set of benefits can contribute to achieving greater levels of cooperation. The identification of benefits is the first step in any TWC process. Countries engage in cooperation discussions because they have already identified that they can benefit from it. Most cooperation processes are initiated around a small number of easy-to-identify benefits. At least in some settings, it is likely that a more thorough look at the potential benefits of TWC will identify additional benefits, some of which will only be generated by deepening the level of cooperation. The identification of benefits will help to make the case for stronger TWC, even if some of the benefits may not be assessed quantitatively or even qualitatively.

28. The identification of a comprehensive set of benefits can contribute to the realization of benefits. Realizing the benefits of cooperation will involve some type of investment, which will need to be financed. In fact, financial resources would be needed also to kick-start and sustain the cooperation process. A better understanding of the full potential of the benefits of TWC would help to attract financial resources, whether from domestic public budgets, bilateral and multilateral development cooperation (such as the Global Environment Facility), or private sources.

29. The identification of benefits will make it possible to define a “benefit-shed”. A “benefit-shed” can be defined as the geographical space where the benefits of TWC are generated. This is likely to be a useful unit of analysis within the cooperation policy process. For example, two countries may share a set of different basins, and the benefits that TWC can generate may vary from basin to basin. It may be useful to look at the set of basins as a “benefit-shed” to identify and assess the benefits of cooperation, instead of looking at single basins in isolation.

**Box 3.1 Examples on how the identification of benefits has contributed to enhanced cooperation**

To be developed - a case where the identification of benefits has contributed to enhanced cooperation

***Section 3.2 –Types of benefits that can be identified***

30. Transboundary water cooperation can potentially generate many benefits, in terms of both development outcomes and process. There are at least two major “families” of benefits generated by TWC. The first “family” of benefits refers to development outcomes. Transboundary water cooperation allows the individual parties to improve the way they manage their water resources (for example by having better information). This will result in positive impacts in different economic sectors (for example in terms of agricultural productivity) as well as for the affected population (for example in terms of health impacts). A second “family” of benefits refers to development process. For example, the demands of the TWC process in terms of information, analysis, establishment of cooperation mechanisms and stakeholder participation will have positive impacts for the domestic governance of water resources and it may have spill-over impacts to the broader domestic water governance agenda.

31. Transboundary water cooperation helps to improve water management. In some cases, transboundary water cooperation will require the improvement of information collection and treatment systems. This will help to improve decision-making regarding domestic water resources. In many settings, cooperative actions (from information exchanges to joint projects) will help to improve the efficiency of water management by reducing the cost of achieving water objectives. In some settings, cooperative actions will help to increase the effectiveness of water management by making possible to achieve water objectives previously out of reach. In context of climate change, transboundary water cooperation effectively expands the water management options and thus has the potential to increase the climate resilience of the countries in the basin.

32. Improved water management provides a large number of direct economic, social and environmental benefits. The potential direct benefits of improved water management are well known. They include benefits in terms of economic production (for example, increased agricultural production and energy production) and protecting economic assets (for example, avoiding the damages of floods on urban infrastructure). They include social benefits (for example, lives saved from water-related disasters and water pollution, and increased access to electricity and water services for some populations). And they include environmental benefits, such as improvements in habitat conditions for many species.

33. Transboundary water cooperation provides other types of benefits that are often overlooked. First, the direct benefits of improved water management are likely to have second-order benefits in the economies of the involved countries – for example, it may lead to an increase in competitiveness across the economy due to lower energy prices. Second, transboundary water cooperation paves the way for other forms of cooperation. There are a fair number of international conflicts revolving around transboundary water resources, in the same way that there are many domestic water conflicts. But in many settings, transboundary water management is actually an entry point to build

trust between countries. Advances in transboundary water cooperation may facilitate advances in other policy areas - such as trade of goods and services or cross-border investments.

34. A typology can help interested parties to identify the benefits of transboundary cooperation. Because TWC can generate many benefits and some of them are not very familiar to many audiences, a typology may be a useful tool to guide stakeholders in the identification of the benefits of TWC. This Policy Guidance Note offers a possible typology of benefits, but other typologies could be developed. This typology focuses on “outcome” benefits. Not all the TWC processes are expected to generate all the benefits listed below. The list of examples is not exhaustive - some TWC processes may generate benefits that are not included below.

### **Draft typology of the benefits of transboundary water cooperation**

#### **Type I – Economic benefits within the basin**

- This category includes expanded activity and productivity in economic sectors (such as aquaculture, irrigated agriculture, mining, energy generation, industrial production, nature-based tourism, water-based transport) thank to the increased availability of water resources (made possible by improved water management).
- It includes the 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)
- It includes the reduced economic impacts of water-related hazards (avoided economic losses from floods and droughts, avoided food shortages, avoided energy shortages)
- It also includes the increased value of property derived from improvements in basin ecosystems.

#### **Type II – Economic benefits beyond the basin**

- This category includes economic impacts in the national economies due to backward and forward linkages of basin-based economic activity with other economic activities in each of the basin countries -- for example, hydropower development may reduce the cost of energy inputs and lead to more competitive productive sectors across the national economies.
- This category also includes the benefits gained from cooperating in economic policy areas after trust has been built in the water area – for example, the gradual opening of markets for goods, services and labour; increases of cross-border investments; or the development of international transport infrastructure networks.

#### **Type III – Social benefits within and beyond the basin**

- This category includes the health impacts (both mortality and morbidity) from improved water quality and reduced risk of water-related disasters.
- It includes the social impacts of the economic benefits – such as reduced unemployment and reduced poverty – both within the basin and beyond the basin.
- It includes the improved access to services (such as electricity and water supply) for populations that previously did not have access to them.

- It also includes non-tangible benefits that result in improved satisfaction of population – for example due to the preservation of cultural resources or access to recreational opportunities.

#### **Type IV – Environmental benefits within and beyond the basin**

- This category includes avoided habitat degradation and biodiversity loss (i.e., non-use value of improved river ecosystem health).
- It also includes would also include the preservation of spawning grounds for marine fish species and migratory bird habitats.

#### **Type V – Geopolitical benefits**

- This category includes the benefits, beyond improved water management, generated from improved relationships between the basin countries. Some of those benefits will be capture under Type II above.
- It includes the benefits of improved security – such as savings from reduced spending and the avoided costs of military conflicts.

### ***Section 3.3 – Challenges and opportunities for the identification of benefits***

35. The benefits of TWC vary from basin to basin. The benefits of improved upstream water management depend on the structure of uses downstream - two basins that are equivalent in hydrological terms will generate different types (and sizes) of benefits if one has large cities and irrigation districts downstream and the other does not. Those basins that have very different characteristics in different parts of the basins are more likely to generate greater benefits from transboundary water cooperation.

36. The identification of TWC benefits involves levels of uncertainty. For several individual benefits, it may be unclear with the information available whether those benefits can be generated in a particular basin. Strategies need to be developed to try to reduce that level of uncertainty, but it may not possible to eliminate it.

37. The identification of TWC benefits must involve a wide variety of stakeholders and experts. Different stakeholders have different knowledge and information about the different aspects and impacts of TWC. Thus, the inclusion of different types of stakeholders should help to ensure that benefits that may otherwise go unidentified are uncovered. While TWC processes are the responsibility of national authorities, it is important to include local government and other local stakeholders. A range of disciplines need to be represented in the process of identification of benefits – this should include hydrology, engineering, micro-economics, macro-economics, sociology, anthropology, military studies, and politics. An inter-sectorial approach to the benefits identification is therefore required.

38. The identification of TWC benefits may be an extended process. In order to set out the potential for cooperation, it is helpful to map out as many benefits as possible from the start. However, in many cases, only some benefits will be identified in a first phase of negotiations leading to (enhanced) cooperation. Enhanced cooperation may lead to further efforts to identify additional benefits, both because the parties are ready to “invest” in the identification process and because some potential benefits may only be apparent (or appear feasible) after the basis for cooperation has been established.

39. It is important to identify not just the benefits, but also the beneficiaries. This would help to inform the political processes (coalition formation) to achieve cooperation. And it would inform the development of possible options for compensation whenever relevant. This applies both at the transboundary (international) and domestic (national) levels.

**Box 3.2. Examples of how TWC benefits have been identified**

*{To be developed. At least one example should show benefit identification as a process. Possible example: Africa's Great Lakes: from cooperation in hydropower to broader transboundary water cooperation)}*

**Chapter 4 – Assessing the benefits of transboundary water cooperation**

*{Target length of the chapter: ten pages. The organization and content of this chapter in particular will be revised after the workshop}*

**Section 4.1 – How to approach the assessment of TWC benefits**

This section will discuss how to approach the assessment of benefits, whether quantitatively or qualitatively. *{Target length of this section: one page}*

40. Benefit assessment should be designed to inform decision-making. Transboundary water cooperation can be articulated in alternative ways. Scenario analysis can be used to inform the impacts of alternative policy paths – such as non-cooperation, weak-cooperation, and strong-cooperation – by asking “what if” questions. The value of the indicators that define each scenario will vary and, since it is unlikely that one single scenario will provide superior values for all the indicators, trade-offs will need to be negotiated. To the extent possible, the different values of those indicators need to be quantified and attached monetary values, as to inform decisions involving trade-offs. At transboundary level, it may be appropriate to focus only on the “gross benefits” as there may be different perceptions among the parties regarding how to value any negative impacts, but each individual party should look at “net benefits” to inform its position.

41. It is not always possible, or desirable, to provide a monetary value of all the benefits of transboundary water cooperation. A TWC benefit assessment may include qualitative assessment, physical quantification, and monetary valuation (through market and non-market techniques). The advantage of being able to provide monetary values is that the importance of the benefits of TWC can be more easily grasped by policymakers, as it becomes easier to compare with other policy initiatives. However, despite progress made in recent decades in economic science, it is still difficult or impossible to value some of the potential beneficial impacts of TWC. There may be cases where monetary valuation of certain impacts would create controversies among stakeholders that undermine the process of TWC rather than support its progress.

42. TWC benefit assessments can have different levels of ambition. These may vary from rough-and-ready estimates to sophisticated, data-hungry and costly methodologies such as scenarios and outlooks. 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.

43. Benefits assessment efforts should focus on the final outcomes of cooperation. TWC will generate intermediate outcomes – such as sharing of information and other aspects of technical-level cooperation. It will be useful to track progress with those intermediate outcomes, to show progress

in the process of TWC. However, the real justification for TWC regards achieving policy objectives such as economic growth, employment creation, life losses avoidance, or improvements in the quality of habitats. Major efforts need to be made to define the outcomes sought, including a selection of indicators, in order to assess the expected benefits of cooperation ex-ante and evaluate the benefits ex-post. In some cases, the most important outcomes of cooperation will relate to the “avoided costs of inaction”, including conflict prevention. Once the key outcomes have been identified, a baseline will need to be established. When the links between intermediate and final outcomes are not clear, it may be necessary to focus as well on intermediate outputs, but care should be taken to avoid double counting (for example when one intermediate output is linked to various final outcomes).

44. Benefits assessment efforts should focus on the right geographical and time scales. Basin-wide assessments can identify win-win opportunities that are not apparent in project-based assessments. Given that some of the benefits of transboundary water cooperation will be generated over long time scales, a TWC benefit assessment should look also at the long-term benefits.

45. Benefit assessment is a process that requires an “adaptive approach”. A TWC benefit assessment can be thought of as a long-term process of improvement. To support it, a long-term research programme should be preferred over short-term consultancies, focusing on a small number of high-quality studies. As new policy needs are expressed and new benefits are identified, new benefits assessment efforts will need to be undertaken. As discussed earlier, a TWC process may be able to deliver increasing benefits over time, as increasing levels of trust open new opportunities for cooperation. *{Possibility to include a graph illustrating how benefits accumulate in a non-linear fashion over the long term.}* In addition, the estimation and valuation of TWC benefits is likely to contain errors (due to different causes, including not fully understood action-response links). These errors can be picked up and corrected in the process of monitoring and evaluation, supported by the long-term research programme.

46. Benefit assessments need to be conducted jointly by the different parties and involve stakeholders. To be useful in supporting a TWC policy process, a TWC benefit assessment needs to be credible and its findings accepted by the relevant parties. This is likely to require a team of experts from the different basin countries. Moreover, the results need to be accepted not just by the parties at national level, but also by the different stakeholders within each country. Thus different stakeholders (policymakers, experts, beneficiaries) need to be involved in the benefit assessment efforts. This will increase the parties’ feeling of ownership and enhance dissemination of the results.

<p><b>Box 4.1. Example of a multi-stakeholder benefit assessment</b> The Mekong River Commission</p>
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*{The following sub-sections will be developed after the workshop, and the structure may be modified. Target length of each sub-section: one or two pages}*

Key points include:

- (a) Extent to which these benefits can be quantified with existing methodologies: potential and limitations (including data requirements);
- (b) Examples of application in a transboundary context

**Section 4.2 – Assessing the economic benefits within the transboundary basin**

**Section 4.3 – Assessing the economic benefits beyond the transboundary basin**

**Section 4.4 – Assessing social benefits**

**Section 4.5 – Assessing environmental benefits within and beyond the transboundary basin**

**Section 4.6 – Assessing the geopolitical benefits**

## **Chapter 5 - Communicating the results of a TWC benefit assessment**

*{Target length of the chapter: four pages}*

### **Section 5.1 – How communication efforts can support policy processes**

47. The results of a TWC benefit assessment can be used for multiple purposes. It can be used for raising awareness among key stakeholders and the general public, for advocacy purposes, for policy development, and for negotiation and compensation. Whatever the purpose, it is important to use the results to clarify basic concepts, illustrating the trade-offs of the with/without cooperation alternatives.

48. Awareness-raising. Many stakeholders may not know what the benefits of strengthened cooperation will be, both in general and for themselves in particular. Communicating those benefits will help to gather public support for the process of cooperation.

49. Advocacy. Some stakeholders, such as local governments or CSOs, may be keen supporters of the process of cooperation, but they will need the right type of information to try to influence domestic decision-making.

50. Policy development. Policy development is not merely a function of evidence, but timely evidence presented in the right way can greatly support policy development. Within an established transboundary policy dialogue, evidence will need to be supplied at different stages. At each stage, the type of evidence communicated to policymakers and its level of detail will have to vary.

#### **Box 5.1 Informing Transboundary Policy Dialogues**

In the UNECE region, several countries have engaged in National Policy Dialogues around integrated water resources management. These National Policy Dialogues are processes that engage domestic stakeholders to identify policy reforms and, with the support of tailored analysis, discuss them and generate consensus that will pave the way for implementation. This concept could be translated to a transboundary context. *{To be further developed}*

51. Negotiation and compensation. Moving towards advanced forms of cooperation will require more detailed and robust information.

### **Section 5.2 – How to approach communication efforts**

52. Communication is a strategic element of any TWC benefit assessment and needs to be carefully considered. If the results of a TWC benefit assessment are presented at the wrong time or in the wrong way, it may derail the programme of increased cooperation. In many cases, TWC processes will include a communications plan; the communication of the results of a TWC benefit assessment should be carefully included in that communications plan.

53. Cooperating parties should communicate the benefits of the overall programme of cooperation. This includes benefits from the improved management of both surface and groundwaters; benefits related to water quantity and quality; benefits generated at the basin and beyond the basin scale; and it includes the evolution of benefits over time (short term, long term).

54. The communication of the results of a TWC benefit assessment should be tailored to the needs of the TWC policy process. Chapter 2 of this Policy Guidance Note discussed how a TWC benefit assessment needs to be tied to an existing policy process of TWC. The status of the TWC policy process should have determined the scope and detail of the TWC benefit assessment. Similarly, the TWC policy process will determine the type and level of efforts for communicating the results of the TWC benefit assessment. Poorly planned or executed communication efforts are likely to be counter-productive and damage the TWC process by increasing transaction costs and decreasing ambitions. *{Possible example to be referenced in a box: Murray-Darling Basin}*.

55. The intended use of the results should shape the communication efforts. A TWC benefit assessment can support the TWC policy process in multiple ways. It can establish a credible and commonly accepted baseline. It can provide commonly accepted estimates of benefits that can be generated under different cooperation scenarios. It can inform the design of incentive and compensation schemes. It can contribute to monitoring the generation of benefits. And it can inform the need to redesign the institutional setting for cooperation. Each of those possible uses of the results of a TWC benefit assessment will require different communication efforts.

56. Communication efforts should frame the messages in ways that are meaningful to the intended audiences. There are several intended audiences for the communication efforts: decision-makers; different stakeholder groups (such as business industry within the basin, youth at tertiary education level, international science community); populations in the basin, the general public. Each intended audience may require a different type of information, and each audience will require that the information is presented in a way that is meaningful to them. For example, it may be more compelling to communicate the “avoided losses and risks” than the “new gains”.

57. Communication of TWC benefits at the local level is more successful when transmitted from the local level. Local stakeholders, such as civil society organisations with local presence and on-the-ground activities, may be better positioned to communicate the benefits of TWC.

58. Communication efforts need to take into account that upstream and downstream countries may have different perspectives. For example, upstream countries may be more focused on minimising risks and downstream countries may be more focused on maximising benefits. It is often more difficult to communicate the benefits for upstream countries.

59. Effective and continuous sharing of benefits requires financial resources. In some settings, they may be provided by international organisations and the donor community.

**Section 5.3 – How to communicate the benefits of transboundary water cooperation for specific purposes**

*{Target length of the section: two pages. To be developed after the workshop.}*

- Guidance for communicating the results for awareness-raising (including DOs and DON'Ts, as well as at least one example);
- Guidance for communicating the results for advocacy (including DOs and DON'Ts, as well as at least one example);
- Guidance for communicating the results for policy development (including DOs and DON'Ts, as well as at least one example);
- Guidance for communicating the results for negotiation (including DOs and DON'Ts, as well as at least one example);
- Guidance for communicating the results for compensation (including DOs and DON'Ts, as well as at least one example).

**Box 5.2 Examples of communication efforts**

*{to be further developed}*

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- Policy briefs targeted at policy makers
- Technical reports targeted at basin technocrats, science/academic community, and private sector
- Comic books targeted at youth
- Participation in competitions targeted at the international science community