

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

Identifying, assessing and communicating **the benefits of transboundary water cooperation**

Lessons learned and recommendations



UNECE

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This document has been produced with the financial assistance of the Swiss Agency for Development and Cooperation.

Contact Information

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

United Nations Economic Commission for Europe

Palais des Nations

CH - 1211 Geneva 10, Switzerland

Tel.: +41 22 917 1218

Email: water.convention@un.org

Website: www.unece.org/env/water

United Nations Economic Commission for Europe

ECE/MP.WAT/NONE/11

ACKNOWLEDGEMENTS

This document could not have been developed without the help and input of several individuals and organizations. The Secretariat of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) hosted by the United Nations Economic Commission for Europe (UNECE) would particularly like to thank the partners and experts who supported this work on the benefits of transboundary water cooperation in the three basins below:

In the Cubango-Okavango River Basin:

- The Permanent Okavango River Basin Water Commission (OKACOM) and its Secretariat (OKASec), in particular Ebenizario Chonguiça, Sekgowa Motsumi and Shirley Selolwane.
- The Okavango Basin Steering Committee (OBSC), in particular Carlos Andrade (Angola), Tracy Molefi (Botswana) and Cynthia Ortmann (Namibia).
- The World Bank team: Marcus Wishart, Ijeoma Emenanjo, Jemima Harley, Davies Saruchera, Margarida Mendes and Rachel Ort.
- The Climate Resilient Infrastructure Development Facility (CRIDF) team: Bruce Mead and the national consultants who carried out a series of national case studies, Rute Saraiva (for Angola), Jaap Arntzen (for Botswana) and Dagmar Honsbein (for Namibia).
- Roberto Martin-Hurtado, international consultant who contributed to the process.

The benefit assessment was carried out with financial support from the multi-donor trust fund for Cooperation in International Waters in Africa (CIWA), the Swedish International Development Cooperation Agency (SIDA) and the Department for International Development (DfID) through CRIDF.

In the Sio-Malaba-Malakisi River Basin:

- The country representatives, in particular Gladys Wekesa (Kenya) and Callist Tindimugaya (Uganda), as well as the group of stakeholders from the Sio-Malaba-Malakisi (SMM) basin who provided key inputs throughout the process.
- The Intergovernmental Authority on Development (IGAD) Secretariat, in particular Fred Mwangi, Daher Elmi and Khadija Mohamed.
- The International Union for Conservation of Nature (IUCN) team, in particular Isabelle Fauconnier, John Owino, Celestine Chemorkok, Christopher Lutakome, James Dalton and Jérôme Koundouno.
- Roberto Martin-Hurtado, Simon Thuo, Phil Riddell, Cosmus Muli and Mohammed Badaza, the regional and international consultants who contributed to the process.

The benefit assessment was carried out with financial support from and in cooperation with the Bureau of Oceans and International Environmental and Scientific Affairs (OES) of the United States Department of State, as well as financial support from the Swiss Agency for Development and Cooperation (SDC) through the IUCN Building River Dialogue and Governance (BRIDGE) Project.

In the Drina River Basin:

- The country representatives, in particular the focal points Momčilo Blagojević (Montenegro), Boško Kenjić (Bosnia and Herzegovina) and Dragana Milovanović and Marija Lazarevic (Serbia).
- The Secretariat of the International Sava River Basin Commission (ISRBC): Samo Grošelj, Dejan Komatina, Ana Marinić, Dragana Milovanović, Mirza Sarač and Dragan Zeljko.

- Roberto Martin-Hurtado, Lucia de Strasser, Youssef Almulla, Francesco Gardumi, Eunice Ramos, Caroline Sundin, Mark Howells, Stephen Stec, Tamara Avellán, Sabina Hadžiahmetović, Zdenka Ivanović, Dalila Jabučar, Miroslav Kukobat, Miodrag Milovanović, Jasmina Ramčić, Goran Sekulić and Dragan Terzić, the international and local consultants who contributed to the process.

The benefit assessment was carried out with the support of the project 'Greening economic development in Western Balkans through applying a nexus approach and identification of benefits of transboundary cooperation' funded by the Italian Ministry for the Environment, Land and Sea.

The following experts greatly contributed to improving the document through their detailed comments: Jaap Arntzen, Centre for Applied Research; Isabelle Fauconnier, IUCN; Dragana Milovanović, ISRBC; Silas Mutia M'nyiri, Ministry of Water and Irrigation, Kenya; Fred Mwangi, IGAD, and Marcus Wishart, the World Bank.

From UNECE, Chantal Demilecamps supported the work on benefit assessment in the three basins and coordinated the development of the document. Francesca Bernardini and Annukka Lipponen contributed to improving it through their inputs and comments. Roberto Martin-Hurtado, UNECE consultant, is the main author of the document. The document was edited by Cathy Lee, UNECE consultant.

The Secretariat would like to thank the Ministry of the Environment of Estonia, particularly Harry Liiv, and the Ministry of Agriculture, Forestry and Water Management of Serbia, particularly Marija Lazarevic, for their important support as co-lead Party for the programme area on the benefits of cooperation under the 2016–2018 programme of work of the Water Convention.

Finally, the Secretariat gratefully acknowledges the funding from the Swiss Development and Cooperation Agency (SDC) and the Norwegian Ministry of Climate and Environment.

To all those who may have been inadvertently missed, please accept our sincere apologies along with our gratitude and thanks.

ACRONYMS

BRIDGE	Building River Dialogue and Governance
CIWA	Cooperation in International Waters in Africa
CORB	Cubango-Okavango River Basin
CRIDF	Climate Resilient Infrastructure Development Facility
DfID	Department for International Development of the United Kingdom
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (Development agency of Germany)
IGAD	Intergovernmental Authority on Development
ISRBC	International Sava River Basin Commission
IUCN	International Union for Conservation of Nature
MSIOA	Multi-Sector Investment Opportunities Analysis
NELSAP	Nile Equatorial Lakes Subsidiary Action Programme
OECD	Organisation for Economic Co-operation and Development
OES	Bureau of Oceans and International Environmental and Scientific Affairs
OKACOM	Permanent Okavango River Basin Water Commission
RBOs	River basin organizations
RECs	Regional Economic Communities
SAP	Strategic Action Programme
SDC	Swiss Agency for Development and Cooperation
SMM	Sio-Malaba-Malakisi River Basin
TAC	Technical Advisory Committee
TDA	Transboundary Diagnostic Analysis
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization



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EXECUTIVE SUMMARY

Transboundary basins provide drinking and domestic water to about two billion people worldwide, but they also sustain irrigation for agriculture, enable industries to function, generate electricity and support ecosystems. Today, these transboundary water resources are under pressure from expanding populations, economic growth, unsustainable patterns of development and the impacts of climate change, making it vital to cooperate over their management. However, there are many obstacles that can prevent countries from strengthening or embracing the joint management of transboundary waters in an effective way, or delay this process. These include the different levels of socioeconomic development and institutional capacity, divergent priorities or conflicting policies, but also an incomplete or biased understanding of the benefits that could be derived from cooperating with neighbouring countries.

The Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) adopted in 2015 the *Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication*. The *Policy Guidance Note* offers guidance on how to carry out benefit assessments to help riparian countries move from perception to facts regarding what can be gained from strengthening cooperation on shared water resources. The *Policy Guidance Note* differentiates *process* benefits (such as better monitoring of water resources or improved communication between water managers) and *outcome* benefits (such as economic growth, lower unemployment, lower burden of water related disease or improved ecosystem health), and highlights the fact that decision makers are paying significantly more attention to outcome benefits than process benefits.

The *Policy Guidance Note* has proven useful to both inspire and guide the development of benefit assessments. Since the publication of the *Policy Guidance Note*, several international and basin organizations have carried out work on the benefits of transboundary water cooperation or the cost of inaction. They include, but are not limited to, three pilot benefit assessments carried out in the framework of the Water Convention's programme of work in the Cubango–Okavango River Basin (shared by Angola, Botswana and Namibia), the Sio-Malaba-Malakisi River Basin (shared by Kenya and Uganda) and the Drina River Basin (mainly shared by Bosnia and Herzegovina, Montenegro and Serbia). Other exercises have considered the *Policy Guidance Note* to differing degrees, for example, the Kura River Basin (work led by the Organisation for Economic Co-operation and Development) and in Central Asia (work led by Adelphi and the Regional Environmental Centre for Central Asia). The exchange of experiences in terms of the identification, assessment and communication of the benefits of transboundary water cooperation through the global platform offered by the Water Convention has proved useful.

Benefit assessments are useful and practical tools to promote transboundary water cooperation: adopting a “benefit lens” can prompt and strengthen transboundary water cooperation. Experience has shown that work on identifying, assessing and communicating the benefits of transboundary water cooperation is highly relevant in promoting transboundary water cooperation, and benefit assessments can be successfully carried out in transboundary basins with different governance, socioeconomic and environmental profiles. It has also proven useful to engage actors that are not usually involved in transboundary water management, such as tourism and the broad energy sectors. It helps to identify and communicate the outcome benefits of cooperation, i.e. the benefits related to the well-being of the population and the development of the basin that can meaningfully convince decision makers at the different levels (local to central government) of the importance of investing in cooperation. The findings of benefit assessments can be used to justify the increase in funding for transboundary cooperation by riparian states themselves.

There is no “blueprint” to develop a benefit assessment. There is a common starting point however: benefit assessments should be owned and led by institutions that have staked interests, including governments of riparian countries, transboundary river basin organizations (RBOs) or regional economic communities (RECs), with several technical and financial partners ready to support them. The process of benefit assessment requires an objective methodology that is credible and accepted by the different riparian states and their stakeholders. The approach presented in the *Policy Guidance Note* is a useful starting point that has been enriched by contributions from different partners. A number of methodologies is available to support a flexible approach that fits the needs of the transboundary cooperation process. A benefit assessment should be designed to operate within existing time

and resource constraints, taking advantage of emerging opportunities that can range from a session in a high-level regional event to a well-resourced, fully-fledged process that may take a year to complete. Flexible funding from development partners could help ensure that benefit assessments are carried out at the right time to influence policy processes and to piggyback on better resourced analytical and planning exercises, thus maximizing the impact of the benefit assessment. In transboundary basins with a well-established RBO, benefit assessments could become a self-financed exercise that is carried out on a regular basis (e.g. every 5 or 10 years) to check on how the type, character (from process to outcome), size and distribution of benefits evolve.

Benefit assessments should be linked to basin investment planning efforts. Riparian states are ultimately interested in unlocking investment opportunities. A benefit assessment helps to identify potential inequalities and highlight benefits from cooperative efforts that might not be immediately obvious from traditional economic or financial cost-benefit approaches. The objectives and outcomes of the benefit assessment need to be understood beforehand and the approach tailored accordingly. Linking a benefit assessment to other analytical efforts will maximize influence, leverage knowledge, minimize costs and avoid consultation fatigue among government officials and other stakeholders. Examples of analytical efforts include, for example, nexus assessments, or Transboundary Diagnostic Assessments and Strategic Action Programmes (TDA/SAP). Country leadership will be required to ensure that those synergies are effectively exploited.

The experience gleaned from the three pilot benefit assessments offers several valuable lessons to other countries and basins wishing to undertake a benefit assessment exercise, as well as to technical and financial partners wishing to support them.

- Launching a benefit assessment exercise. The reasons to undertake a benefit assessment exercise are varied and specific to each basin and its level of cooperation and development. Different types of “promoters” can take the initiative to undertake a benefit assessment. More benefit assessments could be developed to prompt, support or strengthen cooperation, which would require greater awareness among the diversity of potential “promoters” to achieve. The promoters of a benefit assessment should take advantage of the opportunities offered in linking the benefit assessment work to other analytical work, thereby increasing its impact and reducing the overall cost of the benefit assessment exercise. They should thus further explore the link to basin investment planning in benefit assessments.
- Identifying the benefits of transboundary cooperation. The benefits of cooperation can be successfully identified by combining expert analysis and stakeholder consultations. The typology of benefits supports the identification of a large range of outcome benefits that can be adapted to specific basin contexts if required. The importance of peace and security benefits should be highlighted when making the case for transboundary water cooperation. Analysts and stakeholders should look at the historical evolution of the benefits of cooperation and distinguish between ongoing and future potential benefits. They should look at the benefits of cooperation at local and country levels in addition to adopting a basin-wide perspective.
- Assessing the benefits of transboundary water cooperation. The promoters of a benefit assessment should make every effort to move from identification to the assessment of the benefits of cooperation, even if it presents challenges. They should be aware of the difficulties faced in carrying out quantitative assessments, as well as the risk that their outcomes might be challenged. More robust methodologies to carry out qualitative assessments need to be developed by technical partners. Specific cooperative actions or projects to be implemented need to be identified and described in order to develop qualitative assessments that are convincing.
- Communicating the benefits of transboundary water cooperation. The promoters of a benefit assessment should not overlook the important phase of communicating the benefits, which is fundamental in sustaining transboundary water cooperation. The process of developing a benefit assessment per se is a valuable communication exercise. Communicating these benefits should be conceived as the first stage of the process, not the final one.



1. INTRODUCTION

Transboundary basins provide drinking and domestic water to about two billion people worldwide, but they also sustain irrigation for agriculture, enable industries to function, generate electricity and support ecosystems. Today, these transboundary water resources are under pressure from expanding populations, economic growth, unsustainable patterns of development and the impacts of climate change, making it vital to cooperate over their management. However, there are many obstacles that can prevent countries from strengthening or embracing the joint management of transboundary waters in an effective way, or delay this process. These include the different levels of socioeconomic development and institutional capacity, divergent priorities or conflicting policies, but also an incomplete or biased understanding of the benefits that could be derived from cooperating with neighbouring countries¹.

The Parties to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) adopted in 2015 the *Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication*. The *Policy Guidance Note* offers guidance on how to carry out benefit assessments to help riparian countries move from perception to facts regarding what can be gained from strengthening cooperation on shared water resources. The *Policy Guidance Note* differentiates *process* benefits (such as better monitoring of water resources or improved communication between water managers) and *outcome* benefits (such as economic growth, lower unemployment, lower burden of water related disease or improved ecosystem health), and highlights the fact that decision makers are paying significantly more attention to outcome benefits than to process benefits.

Since the publication of the *Policy Guidance Note* in 2015, several international and basin organizations have carried out work on the benefits of transboundary water cooperation or the cost of inaction using the *Policy Guidance Note* as a basis. They include, but are not limited to, three pilot benefit assessments carried out in the Cubango-Okavango River Basin (shared by Angola, Botswana and Namibia), the Sio-Malaba-Malakisi River Basin (shared by Kenya and Uganda) and the Drina River Basin (mainly shared by Bosnia and Herzegovina, Montenegro and Serbia²) in the framework of the Water Convention's programme of work. Other exercises have considered the *Policy Guidance Note* to differing degrees, for example, the Kura River Basin (a study led by the Organisation for Economic Co-operation and Development³) and in Central Asia (a study implemented by Adelphi and the Regional Environmental Centre for Central Asia⁴). A Global Workshop to discuss the different experiences in terms of the identification, assessment and communication of the benefits of transboundary water cooperation took place in Geneva in February 2018 (Box 1).

The Secretariat of the Water Convention, hosted by the United Nations Economic Commission for Europe (UNECE), has supported the implementation of these three pilot benefit assessments together with other partners, including the Permanent Okavango River Basin Water Commission (OKACOM), the World Bank, the Department for International Development (DfID) financed Climate Resilient Infrastructure Development Facility (CRIDF), the Intergovernmental Authority on Development (IGAD), the International Union for Conservation of Nature (IUCN), the United States Department of State, the Italian Ministry for the Environment, Land and Sea, the Swiss Development Cooperation (SDC), and the International Sava River Basin Commission (ISRBC).

This document takes stock of the three pilot experiences and identifies a series of lessons learned and recommendations to help inform the design and implementation of future benefit assessment exercises. This document should interest officials responsible for water issues and who deal with transboundary issues, for example, ministries of foreign affairs, ministries of finance and development planning, sub-national governments of jurisdictions located in transboundary basins, RBOs, as well as financial and technical development cooperation partners involved in transboundary water cooperation.

¹ Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication, New York and Geneva, United Nations, 2015.

² A very small part of the Drina River Basin (less than 1 per cent) is in Albania.

³ The Potential Benefits of Transboundary Co-operation in Georgia and Azerbaijan, Paris, OECD, 2017.

⁴ Rethinking Water in Central Asia: The costs of inaction and benefits of water cooperation, Bern, Swiss Agency for Development and Cooperation, 2017.

Box 1. Gaining and sharing experiences on the benefits of transboundary water cooperation

UNECE together with a number of partners organized a global workshop 'Moving forward transboundary water cooperation: Building on its benefits' (Geneva, 6–7 February 2018) under the Water Convention, which provided a platform for more than 60 countries and organizations to share experiences, good practices, challenges faced and lessons learned related to the understanding, analysis and communication of the benefits of transboundary water cooperation. The main messages of the workshop are summarized below.



Credit: Alexander Beikurov, UNECE

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Adopting a “benefit lens” can prompt and strengthen transboundary water cooperation

Jointly identifying the benefits of cooperation helps find plausible pathways and opportunities for significant improvement in cooperation. Experience from several transboundary basins, such as the Zarumilla River Basin shared by Ecuador and Peru, and the Torne River Basin shared by Finland and Sweden, highlighted the understanding that shared goals, but also opposing interests, in transboundary basins is key. Experience from the Rhine, Sava and Senegal River Basins and the North-Western Sahara Aquifer System showed that cooperation needs to be continuously built to continue generating benefits for basin countries, illustrating the role of joint bodies as catalysts for water cooperation. Conversely, a lack of cooperation has a cost: the report *Rethinking Water in Central Asia* by Adelphi and the Regional Environmental Centre for Central Asia estimates that insufficient cooperation in Central Asia costs more than US\$4.5 billion per year.

Assessing benefits helps to advance transboundary water cooperation processes

While quantifying, and to a greater extent attributing a monetary value to the benefits of cooperation is a challenge, evidence on the importance of the benefits of cooperation can support the cooperation policy process. For example, the estimated benefits of setting up a joint early warning system in the part of the Kura River Basin shared by Azerbaijan and Georgia outweighs the expected investment costs by more than 15 times, as shown by the OECD. Cooperation in the Senegal River Basin resulted in the fruitful management of joint infrastructures, and future planned infrastructures in the basin should make it possible to save about US\$450 million annually on the oil bills of the basin countries.

Communicating the benefits of cooperation is key to ensuring support to and financing of transboundary water cooperation processes

The right communication throughout the cooperation process and at all levels (from local communities to high-level decision makers) is a core element to both initiate and sustain cooperation. It can help mobilize funds to finance development projects in transboundary basins and help gain the support of and endorsement by local populations where appropriate.

For example, communicating the tangible benefits of cooperation in the Nile Basin in the areas of energy generation and trade, land management, ecosystem restoration, food security and water resource management from high-level decision makers to communities plays a crucial role in changing mindsets. Despite diverging positions among Nile Basin countries, particularly between upstream and downstream countries, there has been a growing awareness of the benefits of cooperation and the costs it helps to avoid.

In addition, communication between riparian states is important even when cooperation is well functioning in order to prompt further progress, address new challenges and inspire innovation (for example the CORB countries became engaged in the development of a water allocation strategy even though it was not a priority prior to the cooperation agreement).

More information on the workshop is available from <http://www.unece.org/index.php?id=46345>

2. THE PROCESS OF CARRYING OUT A BENEFIT ASSESSMENT

The *Policy Guidance Note* highlights the compelling reasons to undertake a benefit assessment exercise, which needs to be closely tied to a transboundary water cooperation policy process, and designed to match its needs.

What were the reasons to undertake the benefit assessments?

The benefit assessment in the **Cubango-Okavango** River Basin (CORB) was launched under the auspices of the Permanent Okavango River Basin Water Commission (OKACOM) and was managed through the OKACOM Secretariat under the guidance of the Okavango Basin Steering Committee (OBSC). The Executive Secretary of OKACOM had taken part in the elaboration of the *Policy Guidance Note* and had realized the potential that a benefit assessment could have at a crucial moment in the history of OKACOM. After 20 years of cooperation and with increasing development pressures on the CORB, there was mounting recognition of the need for development within the riparian states. In addition, OKACOM was seeking to justify the need for greater financial contributions from its three Member States. The objective of the benefit assessment was “to gain a clear understanding of the full range of benefits of transboundary water cooperation in the CORB to date, leading to enhanced cooperation and contributing to the realisation of the Basin Vision”. The OKACOM secretariat was highly motivated and allocated funds from its budget support from Sweden to develop a scoping paper as a first step in the development of the benefit assessment.

The benefit assessment in the **Sio-Malaba-Malakisi** (SMM) River Basin was launched at the initiative of the IGAD Secretariat and the governments of Kenya and Uganda to help identify opportunities for benefits enhancement through cooperation in the basin. The IGAD Secretariat also took part in the elaboration of the *Policy Guidance Note* and considered that a benefit assessment in the IGAD region could support stronger transboundary water cooperation among its member countries – not only for those countries sharing the SMM basin but also for the other IGAD countries. Indeed, the findings and lessons learned from the SMM basin would be shared through IGAD’s Water Technical Advisory Committee (TAC) with the aim of strengthening the framework for cooperation on transboundary water resources at the IGAD regional level. Kenya and Uganda had already developed strong cooperation in the SMM basin with support from the SMM River Basin Management Project⁵, but that support was coming to an end. Both countries considered that a multi-stakeholder benefits opportunity assessment dialogue could open up new opportunities for cooperation at the basin level, support the development of a permanent legal and institutional framework for joint water resources management in the basin, and attract donor support for their respective implementation and operation.

The benefit assessment in the **Drina** River Basin was launched at the initiative of Serbia. Serbia was aware of the work around the *Policy Guidance Note* as co-lead Party for the work on the benefits of cooperation under the Water Convention. As a downstream country in the Drina basin, Serbia considered that a benefit assessment would help strengthen and formalize cooperation in the basin by providing an opportunity for the three basin countries⁶ to reflect on the wider benefits of cooperation for all basin riparians, both downstream and upstream.

How were the three benefit assessments developed?

In the **Cubango-Okavango** River Basin, building on a literature review analysis and discussion with OKACOM, the scoping paper included a quick identification of benefits and beneficiaries, as well as a proposal for the development of a full benefit assessment. The scoping paper was well received at the annual meeting of the

⁵ The 2013–2017 project was executed by the Nile Equatorial Lakes Subsidiary Action Programme (NELSAP), under the Nile Basin Initiative (NBI), the Government of Kenya and the Government of Uganda.

⁶ The Drina River Basin is part of the broader Sava River Basin. Montenegro is not a Party to the Framework Agreement on the Sava River Basin (FASRB) and therefore not a member of the International Sava River Basin Commission (ISRBC) established for the purpose of the implementation of the FASRB. Although Montenegro participates in some of the work of the ISRBC on the basis of the Memorandum of Understanding on cooperation between ISRBC and Montenegro, the institutional framework for cooperation in the Drina needs strengthening.

OKACOM Commissioners. It was recognized that a more detailed assessment of the benefits of cooperation could provide an important contribution to the formulation of a Sustainable and Equitable Climate Resilient Investment Program. A collaborative effort was subsequently launched within the context of the broader Multi-Sector Investment Opportunities Analysis (MSIOA) with support from the World Bank through the multi-donor trust fund for Cooperation in International Waters in Africa (CIWA) and the DfID funded Climate Resilient Infrastructure Development Facility (CRIDF). The UNECE Secretariat of the Water Convention provided technical support thanks to financial support from the Swiss Agency for Development Cooperation (SDC).

The development of the benefit assessment included an initial meeting of the partners to agree on the approach. This led the technical partners and consultants to develop the methodological guidance to be used by the national consultants: i) to identify and qualitatively assess the benefits of cooperation in each country (including an interview guide); ii) to organize the three country workshops in the basin (one per country); iii) to undertake the stakeholder perception surveys, consisting of a series of consultations and/or interviews with key national stakeholders and sectors in the three capital cities; iv) to draft three national perspective reports; v) to organize a second meeting of the partners and consultants to review the results of the national perspective papers; and vi) to organize a basin workshop to discuss the findings of the benefit assessment.

In the case of the **Sio-Malaba-Malakisi** River Basin, the IGAD Secretariat approached IUCN and the UNECE Secretariat of the Water Convention with a request to support the development of work on the benefits of transboundary water cooperation in the IGAD region. IUCN and the UNECE Water Convention Secretariat developed a joint project that included a pilot benefit opportunities assessment dialogue in one river basin as part of a broader programme of support to transboundary water governance in the IGAD region, mobilizing funding from the United States Department of State and its Bureau of Oceans and International Environmental and Scientific Affairs (OES) to implement it. To select the pilot basin, IGAD issued a call for proposals among its Member States, and Kenya and Uganda jointly expressed interest in carrying out the work on benefits in the SMM basin.

The development of the benefit opportunities assessment dialogue included: i) a presentation of the approach jointly designed by IUCN and the UNECE Water Convention Secretariat⁷ with support from OES and IGAD at a meeting of IGAD's Water TAC members; ii) the development of a situational analysis and a scoping paper on benefits of cooperation in the SMM basin as an input to the first basin workshop; iii) the organization of a first multi-stakeholder bi-national basin workshop; iv) the development of a draft framework for promoting and guiding investments of transboundary significance in the SMM basin (which provided a strategic approach and broad methodology for the selection and prioritization of projects in the basin) and a benefit opportunity analysis framework (which provided a more detailed methodology for assessing benefits of projects in order to select a set of priority projects for implementation); iv) the organization of a second basin multi-stakeholder workshop; and v) a presentation of progress at a meeting of the IGAD Water TAC members. At the time of writing, the process is still ongoing and next steps will include a third basin workshop to progress towards a stakeholder inclusive institutional framework to sustain cooperation in the basin and to present the results of the investment prioritization work (based on benefit enhancement opportunities through cooperation) to development partners in view of possible funding.

In the **Drina** River Basin, Serbia approached the UNECE Secretariat of the Water Convention for support with the development of a benefit assessment. The UNECE Secretariat of the Water Convention planned the development of a water-food-energy-ecosystem nexus assessment in the Drina River Basin and proposed to integrate the benefit assessment within the nexus work. The nexus assessment in the Drina River Basin aimed to foster transboundary cooperation by identifying intersectoral synergies and determining measures that could alleviate tensions related to the multiple needs of the riparian countries for the common resources. Combined with a benefit assessment, the basin dialogue recommended a broad range of beneficial response actions to address the intersectoral challenges identified⁸.

The development of the benefit assessment included: i) two sessions on the identification and assessment of the benefits of cooperation (rapid identification of benefits, and the target audience for the benefit assessment) at the first multi-stakeholder basin workshop; ii) two sessions on benefit assessment (country perspectives on

⁷ The approach was designed by combining the recommendations of the UNECE Policy Guidance Note on the benefits of cooperation and experience of the Water Convention in supporting transboundary water cooperation processes with the IUCN experience on benefit sharing and multi-stakeholder dialogue in transboundary basins.

⁸ More information on the work on the nexus under the Water Convention is available from <http://www.unece.org/env/water/nexus.html>

benefits, and the qualitative assessment of benefits of proposed nexus actions) at the second multi-stakeholder basin workshop; and iii) the drafting of a chapter on the benefits of implementing intersectoral nexus solutions to improve transboundary water cooperation as part of the overall nexus assessment report⁹.

In all three basins, benefit assessments involved a broad range of stakeholders (policymakers, experts and beneficiaries) who contributed through interviews, national consultations and basin workshops, providing technical input and guidance to the process (Table 1). In addition, national and international consultants contributed to the assessments.

Table 1. Stakeholders engaged in the benefit assessments in the three basins

Classified by basin and stakeholders group

	Cubango-Okavango	Sio-Malaba-Malakisi	Drina
National ministries and agencies	<ul style="list-style-type: none"> Ministry of Foreign Affairs and International Cooperation (Botswana) Department of Water Affairs of the Ministry of Minerals, Energy and Water Resources (Botswana) Ministry of Environment (Botswana) Department of Tourism (Botswana) Ministry of Energy and Water (Angola) Ministry of Environment (Angola) Ministry of Agriculture and Forestry (Angola) National Institute of Meteorology and Geophysics (Angola) Ministry of Environment and Tourism (Namibia) Directorates of Water Resources Management and of Forestry of the Ministry of Agriculture, Water and Forestry (Namibia) Ministry of Fisheries and Marine Resources (Namibia) 	<ul style="list-style-type: none"> Ministry of Foreign Affairs (Kenya and Uganda) Ministry of Water and Environment (Uganda) Ministry of Water and Irrigation (Kenya) Water Resources Management Authority (Kenya) 	<ul style="list-style-type: none"> Ministry of Foreign Trade and Economic Relations (Bosnia and Herzegovina) Ministry of Agriculture and Rural Development (Montenegro) Ministry of Agriculture and Environmental Protection (Serbia) Ministry of Mining and Energy (Serbia) Sava River Watershed Agency (Bosnia and Herzegovina) Environmental Protection Agency (Montenegro) Hydrometeorological institutes (Bosnia and Herzegovina, Montenegro, Serbia) Institute for Nature Conservation (Serbia)
Local authorities and agencies	<ul style="list-style-type: none"> Local Department of Water Affairs (Botswana) Local Department of Environmental Affairs (Botswana) Okavango Wetlands Management Committee Shambyu Traditional Authority (Namibia) 	<ul style="list-style-type: none"> Catchment Management Committee of Kyoga and Mpologoma (Uganda) District Governments of Busia, Butaleja, Manafwa and Namayingo (Uganda) County Governments of Bungoma, Busia and Kakamega (Kenya) Lake Victoria North Water Services Board (Kenya) 	<ul style="list-style-type: none"> Regional Agency for Economic Development of Sumadije and Pomoravlja (Serbia)

⁹ Assessment of the water-food-energy-ecosystem nexus and benefits of transboundary cooperation in the Drina River Basin, UNECE, December 2017. Available from <http://www.unece.org/index.php?id=47750>

	Cubango-Okavango	Sio-Malaba-Malakisi	Drina
Water users, economic sectors	<ul style="list-style-type: none"> • Tourism operators (Botswana) • Tourism Association of Botswana • Okavango Basin Tourist Development Pole (Angola) • National Electricity Transport Network (Angola) • Agriculture Business Development Agency (Namibia) • Agro-Marketing and Trade Agency (Namibia) • Namibia Water Corporation 	<ul style="list-style-type: none"> • Fish farmers association (Uganda) • Water resources users associations (Kenya) 	<ul style="list-style-type: none"> • Power utilities (Bosnia and Herzegovina, Montenegro, and Serbia)
Civil society and academy	<ul style="list-style-type: none"> • University of Botswana Okavango Research Institute • Global Water Partnership – Botswana • Association for the Conservation of the Environment and for Rural Integrated Development (Angola) 	<ul style="list-style-type: none"> • Nile Basin Discourse and Uganda Nile Discourse Forum • Lutheran World Relief (Uganda) • Friends of Lake Victoria (Kenya) 	<ul style="list-style-type: none"> • Green Home • WWF • Balkan Green Energy News
Regional organizations	<ul style="list-style-type: none"> • Permanent Okavango River Basin Water Commission (OKACOM) 	<ul style="list-style-type: none"> • IGAD • Nile Basin Initiative (NELSAP) • Lake Victoria Basin Commission 	<ul style="list-style-type: none"> • International Sava River Basin Commission • Regional Balkans Investment Framework
Technical and financial partners	<ul style="list-style-type: none"> • UNECE Secretariat of the Water Convention • World Bank • CRIDF • Southern Africa Regional Environmental Programme 	<ul style="list-style-type: none"> • UNECE Secretariat of the Water Convention • IUCN • US State Department • GIZ • European Union • SDC 	<ul style="list-style-type: none"> • UNECE Secretariat of the Water Convention • UNU FLORES • FAO • World Bank Group • KfW (German development bank) • Italian Ministry of Environment, Land and Sea Protection

Note: Some names of institutions have changed since the benefit assessments were carried out.

To what extent were the benefit assessments linked to other ongoing processes?

Angola, Botswana and Namibia have been cooperating in improving the knowledge and management of the **Cubango-Okavango** River Basin in the framework of OKACOM for over 20 years. In the last 10 years, OKACOM has developed a Transboundary Diagnostic Analysis (TDA)¹⁰, a Strategic Action Programme (SAP)¹¹, a visioning exercise, and more recently a Multi-Sector Investment Opportunities Analysis (MSIOA). The benefit assessment was carried out as part of the Commission's efforts to continue building on the cooperative foundations and to jointly formulate a Sustainable and Equitable Climate Resilient Investment Programme (cf. Figure 1). Its findings are meant to be integrated into decision processes related to the options analysis phase of OKACOM's investment programme.

¹⁰ Published in 2011.

¹¹ Published in 2012.

Figure 1. Progress of cooperation under OKACOM



Source: OKACOM, 2015 MSIOA study

Kenya and Uganda have been cooperating in the management and development of the **Sio-Malaba-Malakisi** River Basin for over 15 years within the framework of the Nile Basin Initiative and are exploring ways to strengthen and sustain that cooperation process. The SMM benefit opportunity assessment dialogue was linked to a regional process of transboundary water cooperation spearheaded by the IGAD Secretariat and part of a regional project to support that process. The Sio-Malaba-Malakisi benefit assessment directly supported: i) the ongoing process of handover to the countries of the SMM project managed by the Nile Equatorial Lakes Subsidiary Action Programme (NELSAP); ii) the development of a basin investment framework; and iii) facilitated a reflection on the possible long-term legal and institutional framework for transboundary water cooperation in the basin.

The **Drina** River Basin had been cooperatively managed for decades in former Yugoslavia but following the break up, cooperation between Bosnia and Herzegovina, Montenegro and Serbia largely ceased. However, cooperation has steadily increased in the last 10 years within the framework of the International Sava River Basin Commission (ISRBC) with specific projects funded by the World Bank and other development partners. In fact, the Drina nexus assessment was a follow up to a previous nexus assessment in the Sava River Basin. As explained above, the benefit assessment in the Drina River Basin was fully integrated in the process of developing the Drina nexus assessment and built on the cross-sectoral analysis that this entailed, which in turn brought up cooperation opportunities, for example, with the energy sector.

Key lessons learned and recommendations

The reasons to undertake a benefit assessment exercise are varied and specific to each basin and its level of cooperation and development

The three pilot cases fall under the following categories: i) to demonstrate the impact and accrued net benefits (i.e. benefits minus costs) of ongoing transboundary water cooperation and to raise awareness among stakeholders in the basin countries to secure further support; ii) to identify opportunities for developing specific policy measures, actions and cooperation projects of transboundary relevance for the development of the transboundary basins; iii) to help convince political decision makers in all the riparian countries to engage in stronger cooperation and to continue transboundary water cooperation beyond projects supported by donors and international cooperation partners by institutionalizing transboundary water management within basin countries, for example, by concluding a cooperation agreement for the joint management of the basin and by setting up river basin organizations (RBOs);

and iv) to show to a broader community of countries that transboundary water cooperation can be beneficial to all the riparian countries involved.

Different types of “promoters” can take the initiative to conduct a benefit assessment

In the three pilot cases, the different promoters included a RBO, a regional economic cooperation organization and the riparian countries themselves. Benefit assessments can be approached through sectoral perspectives, countries perspectives, regional initiatives or a combination of the above.

Greater awareness and additional demand-driven work on benefits assessments by all concerned stakeholders could inspire further improvements

The UNECE Secretariat of the Water Convention has actively promoted the benefit assessment approach, and experiences in the benefits of cooperation have prompted progress. For example, the OKACOM secretariat, IGAD and Serbia have become aware of the potential of a benefit assessment in helping to strengthen cooperation thanks to their involvement in the development of the *Policy Guidance Note* and in the Water Convention’s work more generally. In addition, greater experience in understanding and sharing the benefits of cooperation has accumulated thanks to the work carried out by a variety of stakeholders in several of the world’s basins.

However, greater awareness is still needed on transboundary water cooperation, its related benefits and the usefulness of the benefit assessment approach. All potential promoters of benefit assessments (riparian countries, RBOs and technical partners) should further promote the benefit approach to prompt, support or strengthen cooperation in transboundary basins.

Sharing experiences, good practices, challenges and lessons learned among stakeholders engaged in such work on benefits can accelerate progress in transboundary basins. Platforms such as the global workshop on the benefits of transboundary water cooperation¹² organized by the UNECE Water Convention Secretariat in February 2018 (cf. Box 1) can prompt additional basins to engage in such cooperation dialogues using the “benefits lens”.

There is an added value in embracing a benefits lens in other exercises, for example the Global Environment Facility (GEF) Guidance for integrating economic valuation of natural resources into the TDA/SAP process,¹³ developed by UNIDO with support from UNECE, UNEP and IUCN. This guidance reflected on some lessons learned from benefit assessment exercises and discussed the benefits of transboundary water cooperation, for example, through the organization of dedicated interactive sessions on benefits during regional capacity-building workshops on transboundary water cooperation that can support the process of accession to the Water Convention.

Take advantage of the opportunities of linking the benefit assessment work to other analytical work to increase its impact and to reduce the cost of the benefit assessment exercise

The three experiences show that a benefit assessment can be adapted to fit in with other analytical exercises either by complementing them (in the Cubango-Okavango case), by becoming integrated (in the Drina case), or by serving as a basis for further work (in the Sio-Malaba-Malakisi case).

In the Cubango-Okavango (CORB) case, the relationship between the benefit assessment and the MSIOA was not conceptualized upfront and it could have been strengthened during their development. Nevertheless, the national workshops and the final basin workshop did discuss both the MSIOA and the benefits assessment, and this reduced costs compared to organizing two independent workshops, but more importantly it linked investment considerations with the distribution of benefits among riparian states and between the various stakeholder groups. It also contributed to ensure the right level of participation from the three riparian countries.

In the Sio-Malaba-Malakisi (SMM) case, it was possible to find flexibility within the framework of the project to respond to the evolving demands of the basin stakeholder, with the benefit assessment process naturally leading to the development of an investment framework that will facilitate the prioritization of investments and attract funding for the development of the basin.

¹² Global workshop ‘Moving forward transboundary water cooperation: Building on its benefits’ (Geneva, 6–7 February 2018). More information available from <http://www.unece.org/index.php?id=46345>

¹³ GEF Guidance Documents to Economic Valuation of Ecosystem Services in International Waters Projects, April 2018. Draft version available from <https://iwllearn.net/manuals/economic-valuation>

In the Drina case, cost savings were realized by: i) combining workshops, given the large overlap in the stakeholders involved in a nexus assessment and a benefit assessment; ii) drawing on the findings of the nexus sectoral experts to develop the benefit assessment; and iii) publishing a single report. More importantly, stakeholders from economic sectors could be more easily engaged in the process. While it took some time to exploit some of the potential synergies between the nexus and the benefits components of the integrated assessment, methodological guidance to facilitate the process of integrating the benefit assessment into a nexus assessment has now been developed¹⁴.

Experience has shown the importance of finding a balance between the time dedicated to the benefit assessment exercise, the funds allocated to it, and the need to maintain the momentum among the stakeholders involved. There are also additional opportunities to link the work on the benefits of cooperation to other analytical work, such as the development of climate change adaptation strategies, the development of agreements, and so on.

Further explore the link to basin investment planning in benefit assessments

In the three basins, the riparian countries were ultimately interested in deepening transboundary cooperation to help unlock the investment potential within the basin. In the CORB, the MSIOA and the benefit assessment were carried out in parallel so as to contribute to the Basin Investment Programme being developed by OKACOM. In the SMM River Basin, half-way through the benefit assessment process, a strong demand emerged from the riparian country authorities for the development of a basin investment plan, and the supporting project responded to that demand within its means by developing a basin investment framework. In the Drina River Basin, riparian countries were keen to identify concrete actions that could be implemented through follow up projects, and certain core recommendations from the nexus assessment are being implemented through a follow up project funded by Italy.

¹⁴ More information can be found in the UNECE publication Methodology for assessing the water-food-energy-ecosystem nexus in transboundary basins and experiences from its application: Synthesis (to be finalized in October 2018 and made available from <http://www.unece.org/env/water/publications/pub.html>).



3. IDENTIFYING THE BENEFITS OF TRANSBOUNDARY WATER COOPERATION

The *Policy Guidance Note* highlights the importance of ensuring that the scope of the benefit assessment is sufficiently broad to make it possible to identify a wide range of benefits. It notes that the benefits of transboundary water cooperation will vary from basin to basin according to their economic, social, environmental and geopolitical characteristics, as well as the stage of cooperation. It recommends that the identified benefits should be “screened” to select the most relevant and important benefits for assessment, taking into account their potential magnitude and other policy-relevant criteria.

How were the benefits of transboundary water cooperation identified?

In the **Cubango-Okavango** River Basin, a rapid identification of the benefits of transboundary water cooperation was carried out as part of the scoping paper¹⁵ based on a literature review and a half-day expert meeting with the OKACOM secretariat staff and two other experts familiar with the basin. The benefits were classified as ongoing and potential, and categorized following the typology presented in the *Policy Guidance Note*. Once the benefit assessment was launched, the three national consultants used the same typology to identify the benefits of cooperation in a participatory approach during the three national workshops with basin stakeholders. At these workshops, the participants were asked to identify a range of benefits, including those for their own country and sector, but they were also asked to consider those they imagined existing in other riparian states and sectors. In addition, interviews with key institutions were conducted, including local and national government, and the main economic sectors such as agriculture, tourism and energy.

In the **Sio-Malaba-Malakisi** River Basin, an initial identification of the benefits of transboundary water cooperation was carried out as part of a scoping paper¹⁶ based on a literature review. Following the discussions at the IGAD Water TAC members meeting, where the benefit assessment approach of the *Policy Guidance Note* was presented alongside IUCN’s work on benefit sharing, the original typology of benefits presented in the *Policy Guidance Note* was modified for use in the SMM benefits assessment¹⁷. The scoping paper reviewed the benefits identified in previous SMM analytical and project documents that looked both at past benefits and the potential (enhanced) benefits of implementing specific projects. It found that many past project ideas did not identify benefits, and that the benefits identified were often process benefits (rather than outcome benefits), while regional economic integration and peace and security benefits were not identified. During the first SMM Basin multi-stakeholder workshop, participants were presented with both the modified typology of benefits¹⁸ and the findings of the scoping paper, and in working groups they were asked to identify the potential (enhanced) benefits from strengthening transboundary water cooperation in the basin.

In the **Drina** River Basin, participants at the first nexus workshop were introduced to the typology of benefits, and in a plenary session they carried out a rapid identification of benefits. Following the example of the CORB, participants at the second nexus workshop were asked to split into three country groups so they could identify the benefits of past and ongoing cooperation in their country, followed by three thematic groups to explore the potential future benefits of cooperation before they presented and discussed their results in plenary. The results of this participatory exercise were complemented with a number of identified potential benefits of cooperation based on a review of both the findings and the proposals of the draft thematic chapters of the nexus assessment.

¹⁵ Roberto Martin-Hurtado, “The benefits of transboundary cooperation in the Cubango-Okavango River Basin – Scoping a Benefit Assessment Exercise”, OKACOM Discussion Paper Series, Discussion Paper 2015/2, May 2015.

¹⁶ Roberto Martin-Hurtado, “Scoping the benefits of transboundary water cooperation in the Sio-Malaba-Malakisi basin”, Discussion paper to support the OES/IGAD project ‘Strengthening Transboundary Water Governance in the IGAD Region’, May 2017.

¹⁷ The category “social and environmental benefits” was split into two categories: social benefits and ecosystem benefits. The reason for separating them was because IGAD Water TAC members felt that ecosystem benefits were often neglected and this change helped bring them more into focus.

¹⁸ Participants supported the modified typology of benefits, underlining the importance of explicitly designating ecosystem benefits, which provide the foundation for long-term economic, social, and peace and security benefits of transboundary water cooperation.

What were the main benefits identified?

In the **Cubango-Okavango** River Basin, the scoping exercise identified benefits related to tourism (including economic growth, employment, tax-revenue or cross-border investments), investor security regarding water entitlements, access to water and sanitation services, sustainable livelihoods, biodiversity conservation, closer trade links, and the reduced risk of conflict. The participatory identification of benefits also highlighted, among other things, the benefits related to food security, community cohesion, a better understanding and appreciation of communities in other countries of the basin, or improved safety and security due to early warning systems.

In the **Sio-Malaba-Malakisi** River Basin, the literature review found that previous analytical and project documents had paid more attention to process benefits than to outcome benefits, and that the only identified outcome benefits were economic, social and environmental benefits (with no attention paid to regional economic integration or peace and security benefits). The participatory identification of benefits also highlighted, among other things, benefits such as the avoidance of conflict (with examples of simmering local level conflicts), a rediscovery of cultural bonds, and a reduction in inequalities in terms of access to resources and benefits.

In the **Drina** River Basin, during the first workshop, participants carried out a rapid identification of benefits based on the typology of the *Policy Guidance Note* and, in addition to economic, social and environmental benefits, they also identified conflict avoidance, the development of regional energy markets, and the reduced cost of complying with European Union targets in the process of accession. During the second workshop, stakeholders identified the benefits of 12 specific actions to develop cooperation in the three priority themes identified through the nexus assessment: co-optimizing flow regulation, promoting rural development and protecting water quality. The participatory identification of benefits was complemented with the expert identification of future benefits based on the analysis of the proposed actions presented in draft nexus chapters that included: hydropower production; economic opportunities in tourism, agriculture and fish-farming; flood mitigation; safe drinking water; ecosystem protection; and reduced greenhouse gas emissions.

Table 2. Benefits of transboundary water cooperation (realized and potential) identified through participatory processes in the three basins

	ECONOMIC BENEFITS	SOCIAL AND ENVIRONMENTAL BENEFITS
CORB	<ul style="list-style-type: none"> • Strong expansion of tourism sector • Modest expansion of agricultural activities, particularly fishing • Land use improvement • Foreign exchange from tourism sector • Projects in the fields of energy, irrigation and water • Reduced costs of natural disasters due to early warning • Increased land value along the river 	<ul style="list-style-type: none"> • Employment creation in tourism and related sectors • Improved livelihoods and poverty reduction • Food security • Water transport and recreation benefits • Improvement of drinking water supply • Community cohesion and understanding • Exposure to and appreciation of other cultures • Ecosystem integrity conservation by communities • Conservation of biodiversity and delta ecosystem • Maintenance of good water quality in the delta • More collaboration natural resource management • Protection of upstream environment and river flow • Improved control of invasive species
SMM	<ul style="list-style-type: none"> • Increase in joint investments • Increase in tourism-related tax revenues • Increase in energy security • Increase in agricultural productivity • Increase in economic growth • Jobs created in transboundary water management agencies 	<ul style="list-style-type: none"> • Improved livelihoods • Increase in food security • Positive health impacts • Increase in collaboration between communities • Rediscovery of cultural bonds • More equitable use of the basin's natural resources • More equitable distribution of benefits • More sustainable water use • Positive impacts on ecosystems • Improvement in water quality • Improvement in climate resilience

	ECONOMIC BENEFITS	SOCIAL AND ENVIRONMENTAL BENEFITS
Drina	<ul style="list-style-type: none"> • Increase in electricity production by raising awareness of opportunities • Increase in agriculture production by improving irrigation systems • Reduced damage from floods and droughts by better modelling of flood and drought risk, developing protective infrastructure and cooperation in flow regulation 	<ul style="list-style-type: none"> • Reduced human costs of floods • Creation of jobs and reduced rural-urban migration thanks to new economic opportunities • Increased resilience of local communities to climate change, including through increased awareness • Protection of water quality and ecosystems, including through improved wastewater treatment and solid waste disposal
	REGIONAL ECONOMIC INTEGRATION	PEACE AND SECURITY BENEFITS
CORB	<ul style="list-style-type: none"> • Investments in research • Investments in road infrastructure • Increased transboundary tourism • Enhancement of bilateral relationships • Increased transborder commercial trade • Sharing of expertise on water management, sustainable tourism, and agri-business. 	<ul style="list-style-type: none"> • Conflict avoidance • Increased collaboration in anti-poaching, border controls • Support from the three countries for World Heritage Site declaration of Okavango Delta • Cultural exchange visits • Agreement about a shared vision based on a shared identity • Increased security thanks to rapid alert systems
SMM	<ul style="list-style-type: none"> • Increase in regional trade and commerce • Increase in regional integration and cooperation 	<ul style="list-style-type: none"> • Anticipate conflicts, avoid/reduce disputes • Peace, harmonious coexistence • Increased cohesion among border communities • Accelerating the achievement of the Sustainable Development Goals
Drina	<ul style="list-style-type: none"> • Increased transboundary cooperation in all areas by making the Drina an item of connection and not division • Strengthened process of accession to the EU and better use of EU funds • Increased energy trade and integration, and energy security • Increased number of people employed thanks to cross border economic activity 	<ul style="list-style-type: none"> • Increased trust between countries from working together in flood protection • Facilitated compliance with international obligations to the EU targets • Avoided conflicts and adoption of cheaper solutions

Note: While some benefits could be reformulated or reclassified to improve clarity and consistency, this table reflects the benefits identified as recorded originally during discussions with basins stakeholders

Source: Compiled from (1) Chongica, E., Martin-Hurtado, R., and Saraiva, R. 2017. CORB Benefit Analysis, presentation delivered at the Cubango-Okavango River Basin Workshop 'Assessing the Benefits of Transboundary Water Cooperation in the CORB', 10 May 2017; (2) Roberto Martin-Hurtado, "Scoping the benefits of transboundary water cooperation in the Sio-Malaba-Malakisi basin", Discussion Paper to support the OES/IGAD project 'Strengthening Transboundary Water Governance in the IGAD Region', 2017; and (3) UNECE, Assessment of the water-food-energy-ecosystems nexus and benefits of transboundary cooperation in the Drina River Basin. United Nations, New York and Geneva, 2017.

Key lessons learned and recommendations

Combine expert analysis and stakeholder consultations for the successful identification of benefits of cooperation

The identification of benefits can be carried out by experts based on a literature review and/or limited consultations with key informants. The involvement of basin stakeholders has proven powerful both for identifying a broader range of benefits and as a tool to communicate those benefits. In the three cases, stakeholders participating in the workshops meaningfully engaged in the exercise of identifying the benefits of cooperation and they highlighted additional benefits that were not included in the menu of examples originally included in the typology presented in the *Policy Guidance Note*. A wide selection of participants representing different interests, views and institutional affiliations is key to supporting the broad identification of benefits. For example, involving representatives from the Ministry of Foreign Affairs supported the identification of peace and security benefits. It is also key to involve stakeholders across sectors (water, trade, energy, and so on) in the benefit assessment process from the outset so as to diminish any possible doubt or opposition to the findings.

Use the typology of benefits to support the identification of a large range of outcome benefits and adapt it to specific basin contexts if needed

The use of the typology effectively structured a dialogue among stakeholders in the identification of a broad range of benefits of cooperation. While process benefits (such as data exchange, monitoring, research and so on) are sometimes difficult to disentangle from outcome benefits (which capture the final impact on beneficiaries), using the typology of benefits has helped stakeholders think more in terms of outcome benefits. The typology of benefits has also helped stakeholders think outside the box of commonly recognized benefits as a result of improved water management (economic, social and environmental benefits), and to also consider and raise awareness on the benefits that come from enhanced trust generated through transboundary water cooperation such as regional economic integration and peace and security benefits. In some workshops, the identification and classification of benefits was relatively straightforward, while in others a lot of discussion took place. Stakeholders have sometimes questioned the “benefits for economic activities” / “benefits beyond economic activities” structure and felt more comfortable splitting the social and environmental benefits into two different types of benefits: one for social benefits and one for environmental benefits. Experience has shown that it was also difficult (if not impossible) to clearly distinguish the benefits derived from transboundary water cooperation from benefits derived from national policy programmes, and that there was a tendency to attribute benefits entirely to cooperation, somehow overestimating its positive impact.

Highlight the importance of peace and security benefits when making the case for transboundary water cooperation

The *Policy Guidance Note* argues that one of the potential benefits of transboundary water cooperation is its contribution to conflict avoidance at the national level. Benefits identification in the three basins has shown that local stakeholders see conflict avoidance at local level as an important benefit of transboundary water cooperation. However, the identification by stakeholders of economic cooperation benefits at the regional level has proved more challenging. This may be due to the comparatively lower representation of economic sectors in the multi-stakeholder workshops.

Acknowledge the historical evolution of the benefits of cooperation and distinguish between ongoing and future potential benefits

When identifying benefits, it is important to look at the benefits of past cooperation because cooperation—in one form or another—may often be ongoing for many years. In some basins, it has been useful to consider the counter-factual alternative, i.e. what would be the current situation without past cooperation. Experience in the CORB has shown the importance of moving along the cooperation continuum starting with establishing communication, building trust, providing a scientific foundation, and then engaging in joint planning before moving to specific investments, while highlighting the specific benefits of cooperation at each stage. “Imagining the future” of cooperation means thinking about the potential benefits that could be additionally generated for specific beneficiaries. This has helped stakeholders identify additional cooperation avenues, for example through the identification of clusters of projects in the SMM basin (cf. chapter 4).

Look at the benefits of cooperation at local and country levels in addition to adopting a basin-wide perspective

Merely aggregating the benefits of individual cooperation activities and projects underestimates the benefits of transboundary water cooperation. Indeed, while each individual cooperation activity or project will generate a mix of economic, social and environmental benefits, and in some cases also local peace and security benefits, their impact in terms of regional economic integration and national peace and security is often negligible. Looking at the benefits of transboundary water cooperation at a basin-wide level allows the cumulative effect of the many ongoing and potential individual activities to become more apparent. Community-level benefits were highlighted in the three cases. As individual countries can reap different types of benefits or receive individual benefits at different rates, and because cooperation decisions are mostly made at national level, developing individual national perspectives can prove useful. An interesting methodological development in the CORB was to explore the perspective of one country in relation to the gains from cooperation by the other countries. In this way, for example, some Botswana stakeholders realized that Angola currently receives a lower share of the benefits derived from tourism and that mechanisms would need to be explored to facilitate the equitable distribution of benefits related to tourism, thereby ensuring sustainable economic development in the long term.

4. ASSESSING THE BENEFITS OF TRANSBOUNDARY WATER COOPERATION

The *Policy Guidance Note* highlights that the level of detail of the assessment phase would vary according to the issues, the stage of cooperation and the political will of the Parties involved. It also highlights the different assessment approaches that are needed for the different types of benefits; all benefits that pass a screening test should undergo at least a qualitative assessment, some benefits can undergo a quantitative assessment, and only in some cases can the monetary value of the benefits be assessed.

How have the benefits of transboundary water cooperation been assessed?

In the **Cubango-Okavango** River Basin, the methodology developed to guide the development of the benefits assessment included a qualitative assessment of the different benefits identified through a ranking exercise of the benefits of cooperation. The ranking exercise was carried out through interviews with key national stakeholders and in the country workshops (for local basin stakeholders). Box 2 explains how the ranking exercise was carried out during the Namibia workshop. In Botswana, the ranking of the benefits proved quite difficult during interviews but worked quite well during the workshop. Quantification was limited to the Botswana perspectives paper, which included statistics on tourism revenues and the findings of a previous economic valuation study (developed as part of the TDA).

In the **Sio-Malaba-Malakisi** River Basin, a different type of qualitative assessment was carried out during the second basin workshop to rank investment projects of transboundary significance in the basin. This was the first concrete application of the benefit opportunities assessment tool (BOAT), an Excel-based instrument to support benefit opportunities assessment dialogues previously developed by IUCN as part of its Building River Dialogue and Governance (BRIDGE) Project. Building on a short list of preliminary prioritized project proposals developed as part of the SMM benefit assessment exercise, the BOAT was applied to identify in a participatory way a core number of priority projects for future intervention. As a result of the process, two clusters (one for the Sio part of the basin and another for the Malaba-Malakisi part), including a total of seven different projects, were prioritized by the different groups of stakeholders to maximize economic, social and environmental benefits. This was considered a manageable number and all projects were retained for inclusion in the future SMM investment strategy (see Box 3 for further details).

In the **Drina** River Basin, both qualitative and quantitative assessments were carried out. During the second basin workshop, participants were asked to assess the benefits of twelve actions (which could include investments or other policy responses), as proposed in the draft nexus assessment. The participants were divided into three groups corresponding to the three substantive themes of the nexus assessment: co-optimizing flow regulation, promoting rural development, and protecting water quality. The groups were asked to identify the benefits of each action in their theme and then to rate those benefits based on a qualitative scale ranging from low to very high benefits. Additional work on the quantitative assessment of benefits was carried out to substantiate the selected benefits of cooperation, in this case, from a coordinated operation of hydropower plants as opposed to optimization on a single unit basis. While heavily dependent on the issues analysed, most assessment methodologies¹⁹ are time and data intensive. The quantitative assessment work highlighted the limitations and risks of the process; quantification ideally requires a large range of local data and not all the required data were available, notably from the energy sector. Consequently, standard values or proxies were used in the absence of such data and assumptions were commonly made. Attention needs to be paid to ensure transparency in quantification, including in the tools, data validation and any assumptions made. Even with unavoidable simplification and limitations, a quantification can be helpful in provoking discussion. In the case of the Drina, the hydropower related modelling was carried out using an open-source model, which would allow the user to replicate the quantification or change the data used. Box 4 shows the results of a quantitative assessment of the benefits of improving cooperation in hydropower generation.

¹⁹ More information on assessment methodologies can be found in the UNECE publication *Methodology for assessing the water-food-energy-ecosystem nexus in transboundary basins and experiences from its application: Synthesis* (to be finalized in October 2018 and made available from <http://www.unece.org/env/water/publications/pub.html>).

Box 2. Qualitative assessment of benefits of cooperation in the Cubango-Okavango River Basin

The benefit assessment of the Cubango-Okavango River Basin (CORB) relied to a large extent on national perspective papers developed through a common approach focused on literature reviews, interviews and national stakeholder workshops. During the Namibia workshop, stakeholders were initially asked to identify the benefits of cooperation and to categorize them according to the Water Convention typology, indicating the periods of the CORB cooperation process, i.e. before OKACOM was established, before the OKACOM secretariat was established, recent years, or the future. Stakeholders were also asked to rank the importance of the individual benefits through a voting mechanism; indicated in the photo below by the number of yellow dots. Stakeholders also identified whether actions for the realization of the benefits were mostly dependent on decisions by policy-makers (pink dots) or whether they were mostly under their own control (green dots).



Credit: Dagmar Honsbein, CRIDF

Source: Dagmar Honsbein, *Benefit Analysis for the Cubango-Okavango River Basin (CORB) – Country report*, 2016. Namibia Report commissioned by CRIDF

Box 3. Qualitative assessment of the benefits of cooperation projects in the Sio-Malaba-Malakisi basin

As part of the SMM benefit assessment process, a qualitative assessment of the net benefits of possible investment projects of transboundary significance in the SMM basin was carried out during the second basin workshop using the Benefit Opportunity Assessment Tool (BOAT) developed by IUCN.

In advance of the workshop, a thorough mapping of all relevant existing project proposals had been carried out by consultants. The mapping identified 67 project proposals, which were then screened on the basis of information available (they should include some basin information to be further considered) and project size (an initial threshold of US\$ 1 million). The resulting long list was ranked by consultants using multicriteria analysis; the criteria included transboundary significance, alignment with policy objectives, ease of implementation and financial sustainability. The top 12 project proposals were selected for further analysis during the workshop.

Workshop participants used the BOAT methodology to further analyse the shortlist of 12 proposals. Workshop participants were divided into four groups (two analysing the Sio part of the basin, and two analysing the Malaba-Malakisi part of the basin). Each group selected a set of three relevant projects from the shortlist and indicated whether each stakeholder group in each riparian country would experience a positive impact / no impact / or a negative impact (on economic, social or environmental benefits) from each project. The Excel-based BOAT aggregated the results and showed the net number of positive impacts for the basin as a whole for each set of projects. Each group then tried different combinations of projects and revised the design of some project proposals to try to maximize the net benefits to stakeholders of their set of projects through cooperation.



Credit: Christopher Lutakome, IUCN

Box 4. Quantitative assessment of benefits of cooperation in the Drina River Basin

A modelling exercise carried out as part of the Drina nexus assessment to illustrate some trade-offs around hydropower development generated a quantitative assessment of the benefits of improving cooperation in hydropower production. It was estimated that a cooperative operation of hydropower dams could deliver above 600 GWh of electricity over the 2017–2030 period. Overall system savings for the three countries could amount to US\$ 136 million over the entire modelling period with the assumptions made. Setting aside 30 per cent of dam capacity for flood control would have a cost (in terms of lost energy production) equivalent to 4 per cent of the combined operational cost of the electricity system in the three countries. Increasing energy efficiency would reduce pressure on hydropower generation, possibly up to 4.1 TWh in the entire Drina basin in the 2017–2030 period, and would also deliver significant reductions in greenhouse gas emissions from 38 Mt in 2017 to about 28 Mt in 2030.

Source: UNECE, Assessment of the water-food-energy-ecosystems nexus and benefits of transboundary cooperation in the Drina River Basin. United Nations, New York and Geneva, 2017.



Key lessons learned and recommendations

Move from identification to assessment of the benefits of cooperation, even if it is challenging

The identification of benefits often produces a long list of benefits. However, not all of them will have the same importance. Assessing the relative importance of each benefit will help guide further cooperative action in the basin. As illustrated by the three experiences, qualitative assessments can be carried out using a variety of methodologies. Participatory qualitative assessment methodologies are practical and powerful, and contribute both to the assessment and communication phases of a benefit assessment.

Be aware of the difficulties of carrying out quantitative assessments, and the risk that their outcomes could be challenged

Quantification of net benefits is important but requires considerable extra work and is not always possible. There have been some efforts to mobilize available statistical and economic valuation information, but they have been limited due to time and resources limitations, among other things. Linking a benefit assessment to other analyses can open some opportunities, as illustrated by the case of the energy modelling in the Drina. Even then, there was a reluctance from some basin stakeholders to accept the results of the modelling if their national experts could not thoroughly check the assumptions and how the model works.

More robust methodologies to carry out qualitative assessments need to be developed by technical partners

Moving forward, the focus should be on increasing the robustness of qualitative assessment methodologies because it is difficult to carry out quantitative assessments. The benefit assessment framework could potentially be expanded to include guidance on how to assess the relative importance of each benefit. More attention should also be dedicated to the costs of cooperation in order to better assess the net benefits of cooperation (i.e. benefits minus costs). The experiences of the three basins show that there is already a good basis to work on.

Identify and describe specific cooperative actions or projects to be implemented so as to develop qualitative assessments that are convincing

It is relatively simple to carry out a rapid identification of the benefits of transboundary water cooperation. However, the convincing power of a benefit assessment to strengthen transboundary water cooperation is greater if the expected future benefits can be assessed. The experiences from the SMM and the Drina river basins show that once work has been conducted on identifying and describing specific cooperative actions or projects, it is then possible to develop qualitative assessments of those cooperative actions or projects.



5. COMMUNICATING THE BENEFITS OF TRANSBOUNDARY WATER COOPERATION

The *Policy Guidance Note* highlights that communication efforts are key to integrating the assessment results in the transboundary water cooperation process, that it is necessary to understand the drivers for decision-making to develop an internal communications approach for decision-makers and stakeholders, and that communication efforts should focus on moving from perceptions to facts.

How have the benefits of transboundary cooperation been communicated?

In the **Cubango-Okavango** River Basin, the process of carrying out the benefits assessment has represented a major communication action by itself. Dozens of relevant stakeholders and decision makers from different sectors and decision-making levels took part in the interviews and/or in the national workshops. Moreover, the interim results were presented to the basin commissioners and to stakeholders taking part in MSIOA workshops and were discussed at the basin workshop. OKACOM has experience in developing communication materials adapted to the different audiences and a few years ago it developed a communications strategy. These efforts are aimed at continuing support for the implementation of the SAP and the realization of the Basin Vision.

In the **Sio-Malaba-Malakisi** River Basin, participants at the first basin workshop identified ministries of water, ministries of finance, and development partners as the key target audiences to obtain higher levels of funding for transboundary water institutions and infrastructure. The ministries in charge of water of Kenya and Uganda have been leading the benefit assessment exercise. Representatives from development partners were invited to participate at the second basin workshop, which was attended by representatives from the European Union, GIZ and the Embassy of the United States. At the time of writing, the project is still ongoing and it is expected that further efforts to communicate the results to different audiences, including ministries of finance, will also take place.

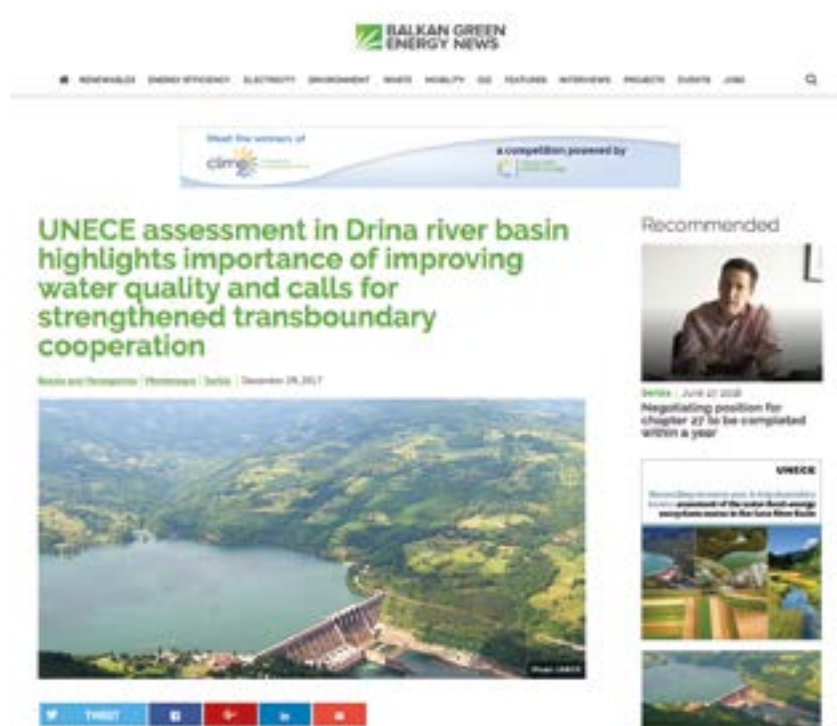
In the **Drina** River Basin, the participants at the first basin workshop identified a range of target audiences for the benefits assessment (Box 5). In June 2017, UNECE published a 5-page policy brief²⁰ with the main messages of the Drina nexus and benefits assessment, and in December 2017 it published a 44-page full synthesis report²¹ on the assessment that included a 5-page chapter on the benefits of transboundary water cooperation in the Drina. In addition, the findings of the nexus and benefit assessment in the Drina basin were promoted through specialized local media channels, such as the Balkan Green Energy News portal (Figure 2). The findings were also subject to discussions in meetings in the region, including in the framework of a follow up project. The nexus assessment and benefits study also contributed to the design of the project then under preparation and funded by the Special Climate Change Fund (SCCF)²².

²⁰ UNECE, *Policy Brief: Assessment of the water-food-energy-ecosystems nexus and the benefits of transboundary cooperation in the Drina River Basin*, June 2017. Available from <http://www.unece.org/index.php?id=46164>

²¹ UNECE, *Assessment of the water-food-energy-ecosystem nexus and benefits of transboundary cooperation in the Drina River Basin*, December 2017. Available from <http://www.unece.org/index.php?id=47750>

²² The Global Environment Facility (GEF), the operating entity of the Financial Mechanism, operates the SCCF.

Figure 2. Communication of the benefits of transboundary water cooperation in the Drina River Basin



Source: Balkan Green Energy News portal²³

Box 5. Target audiences for communicating the benefits of transboundary water cooperation

At the start of a benefit assessment process, it is helpful to identify the target audience of the benefit assessment, i.e. the stakeholders with a capacity to strengthen transboundary water cooperation and who needs to be convinced that strengthening transboundary water cooperation makes sense. At the workshop launch of the project 'Strengthening Transboundary Water Governance in the IGAD Region', the IGAD Water TAC members of Djibouti, Kenya, Uganda, Somalia and South Sudan were brought together to identify a range of target audiences through brainstorming, ranging from water users to political leaders. At the first workshop of the Drina nexus assessment, a similar exercise was carried out, but it went one step further and identified priority target audiences through a voting exercise. It became clear that while a range of stakeholders should be targeted, the primary ones—in the case of the Drina—were national governments, including at the level of the Premier.

Key lessons learned and recommendations

Do not neglect the phase of communication of the benefits, which is fundamental to sustaining transboundary water cooperation

As suggested in chapter 2, even in basins where transboundary cooperation is well established, like the Cubango-Okavango River Basin, communication about the benefits of cooperation is key to ensuring support and commitment to cooperation and thus the sustainability (and funding) of cooperation. In the three cases, comparatively less effort has been made to communicate the results of the benefit assessment exercises than to identify and assess benefits. If the findings of a benefits assessment are not effectively communicated, the efforts to identify and assess benefits will largely be wasted, as the rationale for carrying out a benefit assessment is to influence decision-making regarding

²³ For more information, go to <https://balkangreenenergynews.com/unece-assessment-in-drina-river-basin-highlights-importance-of-improving-water-quality-and-calls-for-strengthened-transboundary-cooperation/>

transboundary water cooperation. To rebalance this situation, more resources (including project management and expert time) will need to be mobilized for the communications component.

Consider the process of developing a benefit assessment per se as a valuable communication exercise

The stakeholder workshops have mobilized dozens of participants, some of whom are well positioned to make or influence relevant decisions. Through their participation at the workshops, the stakeholders have an invaluable opportunity to consider the benefits of transboundary water cooperation. This reinforces the need to ensure that the right stakeholders are involved in the benefit assessment process. It is important to document the exercises carried out during the workshops, as well as their findings and conclusions, so as to reach out to the stakeholders who were unable to take part in the workshops and to gain credibility among decision makers.

Conceive the communication of benefits like the first stage of the process, not the final one

It is recommended to start the benefit assessment exercise by defining a plan for the communication of benefits. This should start by identifying the target audiences, as realized for example in the Drina case, but it should go further and consider the level of detail and evidence needed to influence the target audiences, as well as the characteristics of the assessment. It should also identify the stakeholders who should be involved in the benefit assessment exercise so as to ensure the acceptance and legitimacy of the results.

Identifying, assessing and communicating the benefits of transboundary water cooperation Lessons learned and recommendations

Transboundary water resources are vital for populations, ecosystems and for the development of basins, but these resources are under growing pressure, making it crucial to cooperate for their effective management. However, many obstacles exist that can prevent countries from strengthening or embracing the joint management of transboundary waters in an effective way, which in turn can hinder this cooperative process. This includes a poor or subjective understanding of the benefits that could be derived from cooperation with neighbouring countries.

As cooperation is a main obligation under the Water Convention, countries preparing their accession or implementing the Water Convention will evidently reflect on the benefits that cooperation can bring. Benefit assessments are therefore useful and practical tools to promote transboundary water cooperation. Indeed, the adoption of a “benefit lens” can prompt and strengthen joint activities, plans or programmes.

Since its publication in 2015, the Policy Guidance Note on the Benefits of Transboundary Water Cooperation has resulted in several international and basin organizations carrying out work on the benefits of transboundary water cooperation.

This document primarily takes stock of the three pilot benefit assessments conducted within the framework of the Water Convention’s programme of work in the Cubango-Okavango River Basin, the Sio-Malaba-Malakisi River Basin and the Drina River Basin. It identifies a series of lessons learned and recommendations to help inform the design and implementation of future benefit assessment exercises.

This document should interest all those responsible for water resources and who deal with transboundary issues, for example, ministries of foreign affairs, ministries of finance and development planning, sub-national governments of jurisdictions located in transboundary basins, river basin organizations, as well as financial and technical development partners involved in transboundary water cooperation.

Information Service
United Nations Economic Commission for Europe

Palais des Nations
CH - 1211 Geneva 10, Switzerland
Telephone: +41(0)22 917 12 34
E-mail: unece_info@un.org
Website: <http://www.unece.org>