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ROUND TABLE

COOPERATION AND BENEFIT SHARING IN THE SENEGAL AND NIGER RIVER BASINS

24 September 2015

WORLD METEOROLOGICAL ORGANIZATION (WMO)

SUMMARY REPORT



**UNIVERSITÉ
DE GENÈVE**
FACULTÉ DE DROIT

Platform for International Water Law



**UNIVERSITÉ
DE GENÈVE**
INSTITUT DES SCIENCES
DE L'ENVIRONNEMENT



Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra
**Direction du développement
et de la coopération DDC**

Introduction

The Round Table on “Cooperation and Benefit Sharing in the Senegal and Niger River Basins” took place on 24 September 2015 at the World Meteorological Organization (WMO) in Geneva. Organised by the Geneva Water Hub, the Platform for International Water Law of the University of Geneva’s Faculty of Law and the Institute for Environmental Sciences, the event brought together around 40 participants, including representatives of diplomatic missions in Geneva, international civil servants, leaders of non-governmental organisations, private sector managers, and Swiss and foreign academics (see the attached programme and participant list).

The Round Table was opened by Mr. François Münger, Swiss Special Envoy for Water and Manager of the Geneva Water Hub, and His Excellency Éloi Laourou, Ambassador and Deputy Permanent Representative of the Embassy and Permanent Mission of Benin in Geneva. Both speakers emphasised the importance of the event for the activities of the Geneva Water Hub and for all actors involved in international water cooperation. The announcement that a High-Level Global Panel on Water and Peace would be launched in November 2015 reflected the Geneva Water Hub’s intention to actively engage the themes of international peace and security. The opening session of the Round Table also highlighted the importance of ensuring the sustainable protection and management of water resources. In this regard, target 6.6 of the Sustainable Development Goals (SDG), focused on Integrated Water Resources Management (IWRM) and transboundary cooperation, illustrates the significance of the issues covered by the Round Table. River basin organisations such as the Senegal River Basin Development Organisation (French acronym OMVS) and the Niger Basin Authority (NBA) are representative examples of transboundary cooperation, IWRM implementation and benefit sharing.

The Round Table benefitted from the participation of the following three experts from West Africa:

- **Mr. Tamsir Ndiaye**, General Director, Diama Dam Management and Operation Agency (SOGED), Senegal River Basin Development Organisation (OMVS).
- **Mr. Aminou Tassiou**, Former Minister of Water of the Republic of Niger and Consultant for the World Bank on the Niger river basin.
- **Mr. Akambi Afouda**, Professor at the University of Abomey-Calavi (Benin), Chair of the Global Water Partnership in West Africa (GWP - WAWP).

The presence of these experts significantly enriched the group’s understanding of the practice of the OMVS and the NBA. They enabled a critical discussion on the operational model of the two organisations and created an opportunity to confront academic and practitioner views. The Round Table discussions were based on the experts’ presentations and on memos and questionnaires prepared by University of Geneva researchers that had been shared beforehand and were presented on the day of the Round Table.

I. Good Practices and Lessons Learned from the First Session

a. Research Papers

The first session, titled “The Evolution of Cooperation Factors within the Niger Basin Authority (NBA) and the Senegal River Basin Development Organisation (OMVS): What Are the Lessons for the World’s Other River Basins?” examined the factors promoting cooperation within the OMVS and the NBA and the evolution of these organisations. The session was moderated by Ms. Marie-Laure Vercambé, director of the “Water for Life and Peace” Programme at Green Cross International.

Two researchers from the Institute for Environmental Sciences (ISE), political scientist Dr. Christian Bréthaut and economist Dr. Thomas Bolognesi, presented a paper on “Cooperation Factors in Transboundary Watersheds: Lessons from the OMVS and the NBA”. Their work identifies four phases in the governance of the Senegal river. The first phase (1820-1963) begins in the colonial period and lasts until the independence of the riparian States. The second phase (1968-1973) is marked by the Great Sahel Drought, which drove the definition and implementation of transboundary management of the Senegal river. The third phase (1974-1988) encompasses the creation of the OMVS and the regulation of the river’s water flows. Finally, the last phase (1990-2002) witnesses the emergence of environmental issues within the OMVS (Paper, 2015, pp. 6-8). The researchers emphasised that natural factors, such as the 1970-1980 drought, as well as political matters, such as the increasing tension between Senegal and Guinea, played a key part in the creation of the OMVS.

In their analysis of the NBA, the researchers observed that the river governance system underwent a number of transformations. Water needs in the Niger basin, which is shared by nine States, are widely disparate. The watershed drainage area is primarily located in Mali (27%), Niger (26%) and Nigeria (29%). Conversely, the drainage basin represents over 30% of the surface area of Benin (41%), Burkina Faso (33%), Guinea (41%) and Nigeria (60%) but less than 10% of the surface area of Côte d’Ivoire (7%), Niger (7%) and Chad (2%). There is thus a strong asymmetry between the different NBA Member States’ degree of connection to the drainage area (Paper, 2015, p. 10). This asymmetry is reflected in the NBA’s cost sharing scheme, under which countries occupying a large surface area contribute the most.

The NBA’s continuing adaptation to social, economic and political changes were thrown into sharp relief across four broad phases of governance structure. The first phase, from 1950 to 1964, is characterised by the transition from the colonial period to independence. The NBA was created in the years 1979-1980. At the end of the 1980s, the NBA entered a third phase marked by challenges and adjustments to its governance system. Following this “crisis” period, the decade that began in 2000 saw a transformation of the NBA’s institutional paradigm, and a marked improvement in its performance.

The researchers noted two examples of good practices within the OMVS and the NBA: the first concerns the regulation of water uses and the second relates to the organisations’ adaptability to the region’s political-economic transformations. The

analysis of the two organisations highlighted their capacity to govern the many uses of water, including energy, agriculture, navigation and industry. Their numerous areas of activity are closely connected to the socio-economic development of the riparian States (Paper, 2015, p. 1). In the context of the OMVS, the construction of hydroelectric installations successfully reconciled the interests of different economic sectors and thereby decreased the potential for tension between, for instance, reducing the river's flow to produce electricity and ensuring sufficient water for irrigation purposes. In the case of the Niger river, the governance structure remains subordinate to national policies. There are numerous bilateral agreements between this river's riparian States. These agreements underscore the dissimilarities between the countries sharing the watercourse, particularly with regard to their uses of it.

Another aspect examined by the paper focused on changes in the region's water regime and the impacts of climate change. Rainfall and river flow have decreased by about 30% in the past decade. This decrease in water supply has had a direct impact on the areas of activity of the OMVS and the NBA, in particular with respect to energy production, agriculture and navigation. Moreover, the region's countries are experiencing an increase in the frequency of natural disasters, creating water security challenges. To conclude, T. Bolognesi and C. Bréthaut emphasised that the OMVS and the NBA represent two models of transboundary water management due to their adaptability and their resilience to social, political and economic change in the region. Historical analysis of the two institutions revealed the unique evolutionary path followed by each governance framework. In this context, political stability and the parties' readiness to cooperate seem to have been critical to their ability to obtain foreign financing and thus more quickly implement an operational governance framework.

b. Expert discussion with the audience

The factors promoting cooperation within the OMVS and the NBA were analysed in depth during the experts' engagement with the audience. The guest experts stressed that the two organisations have dissimilar levels of cooperation.

Among the key factors promoting cooperation in the Senegal basin, the following were emphasised:

- 1) The historical context, including the Cold War and the revolution in Guinea, caused this country to exit the joint institutional mechanism of the Senegal river in the 1960s;
- 2) Political stability in Senegal helps to explain the positive progress of cooperation in the basin;
- 3) The geographical proximity, cultural similarity and common colonial heritage of the river basin States promote cooperation within the OMVS;
- 4) Both organisational mechanisms (distribution of posts) and financial schemes (State contributions) guaranteeing the equality of all Member States contribute to the success of the OMVS mechanism;
- 5) The establishment of a technical branch that is only marginally influenced by policy also helps to explain the OMVS's effectiveness.

The experts confirmed that within the NBA, the large number of Member States is a complicating factor for cooperation in the Niger basin:

- 1) The NBA is thus composed of States with a disparate degree of geographical, cultural and social connection and with very dissimilar national economies;
- 2) The organisation's high level of politicisation, especially by Nigeria, was identified as a factor inhibiting cooperation within the NBA;
- 3) The unequal distribution of State financial contributions promotes the domination of certain States, particularly Nigeria;
- 4) The region's security issues act as a brake on cooperation.

The experts noted that the OMVS and the NBA need to adapt once more to the new socio-economic and environmental challenges that have arisen. The relationship between river basin States needs to be strengthened both within the OMVS and the NBA in order to fully implement IWRM. It was stressed that both organisations should maintain their independence from Member States. With respect to the OMVS, the presenters underlined that effectively integrating Guinea into the organisational system represented a key challenge. The Mekrou sub-basin pilot project was brought up on the question of strengthening the NBA. This project, led by the Global Water Partnership, may offer opportunities to intensify cooperation in the Niger basin.

II. Best Practices and Lessons Learned from the Second Session

a. Research Papers

The second session was titled "Common Facilities and Benefit Sharing in the Senegal and Niger Rivers: What Are the Lessons for the World's Other River Basins?". This session was moderated by Mr. Makane Moïse Mbengue, Associate Professor at the Faculty of Law and the Institute for Environmental Sciences of the University of Geneva.

Two researchers from the Platform for International Water Law at the Faculty of Law, Dr. Mara Tignino and Mr. Komlan Sangbana, both legal experts, presented a paper on "The Status of Common Facilities and Benefit Sharing in the Niger and Senegal River Basins". The purpose of the paper was to present the legal and institutional framework of the Senegal and Niger rivers, defining the legal status of common facilities and benefit sharing between riparian States. The two researchers emphasised that hydroelectric infrastructure projects in the Senegal and Niger rivers offer opportunities for cooperation between riparian States. After the creation of the OMVS in 1972, Mali, Mauritania and Senegal were the first African States to adopt specific legal instruments on the status and financing of joint infrastructures on an international watercourse (notably the "Convention on the Legal Status of Common Facilities"/ *Convention relative au statut juridique d'ouvrages communs* (1978), and the "Convention concerning financing terms for common facilities"/ *Convention relative aux modalités de financement des ouvrages communs* (1982)). These same States also adopted two agreements in 1997 specifically devoted to the Diama and Manantali dams: the "International Convention Creating the Diama Dam Management and Operation Agency"/ *Convention internationale portant création de l'Agence de gestion et d'exploitation de Diama* and the "Convention Creating the

Manantali Energy Management Agency”/ *Convention portant création de l’Agence de gestion de l’énergie de Manantali*. The presentation showed that the institutional status of the Diama and Manantali dams within the OMVS meets a critical requirement of the legal definition of “common facilities”. This “communitisation of interests” within the framework of the OMVS allows water infrastructure to be anchored in one State’s territory without hindering other Member States from exercising their rights. In this sense, the status of the Diama and Manantali installations represents a perfect example of water use cooperation on an international watercourse in order to produce energy, provide drinking water, and allow irrigation and navigation (Paper, 2015, pp. 8-9).

The report also emphasised the fact that the common facilities on the Senegal river are operated under a joint, indivisible ownership regime among the riparian states. Mali, Mauritania and Senegal share joint responsibility for the management and operation of the two existing dams. This framework has particularly strong implications for financing arrangements. OMVS Member States jointly guarantee the repayment of principal and interest on any loans made to the organisation for the construction and operation of the common facilities. The payments are allocated pro rata according to each country’s participation in the costs and expenses of the facilities, in accordance with a cost schedule set out in an agreement between the Member States (see article 8 of the 1982 Convention concerning financing terms for common facilities/*Convention relative aux modalités de financement des ouvrages communs*).

NBA Member States have sought to put a similar regime in place to govern hydroelectric infrastructure. As of yet, the Niger basin States have no jointly-governed infrastructure, and have concluded no agreements on the specifics of future projects. Such agreements are nonetheless expected to play a role in ongoing development of the NBA legal regime. The outlines of the expected regime are discernible in the Sustainable Development Action Plan (SDAP) and the Niger Basin Water Charter. The latter instrument foresees that projects will have the status of either “common facilities” or “facilities of common interest.” In accordance with details set out in the SDAP, the States Parties to the Water Charter have set out a plan for the future of the Niger basin that includes both the rehabilitation of existing dams (Kainji, Jebba (Nigeria) and Lagdo (Cameroon) and the development of new ones (at Fomi, Taoussa and Kandadji). The three new projects will benefit from their status as common facilities under NBA auspices. In light of this anticipated status, the two researchers raised the question of whether establishing common facilities was the most appropriate strategy for the configuration of the Niger watershed, given that nine States have more or less direct access to the river’s main channel (Paper, 2015, p 11).

The researchers next turned to the issue of benefit sharing. Under the OMVS framework, the division of benefits is organised on an equitable basis, which consists of matching investment costs with the direct benefits earned from the installations. This means that a State with a co-ownership interest must not interfere with the benefits the other States draw from the installation. On this point, there remains questions concerning Guinea’s ability to earn benefits from the projects following their accession to the OMVS. According to the 2006 treaty governing Guinea’s accession, the Conference of Heads of State and Government will rule on Guinea’s

future share of costs, profits and expenses. Beyond this, conditions for the construction and operation of all shared infrastructure with regard to Guinea are to be decided on a case by case basis. (Paper, 2015, p 13)

The principle of benefit sharing also informs the Niger basin legal regime. As in the case of the OMVS, the issue is a matter of finding an equitable distribution. However, the method of division depends on whether projects are designated as common facilities or only facilities of common interest. Despite the absence of any existing practice, the status of common facilities can be understood to create a division of benefits that would duplicate the OMVS model. Each State would be obliged to ensure that the others are also able to draw benefits from these projects. The situation is different for facilities of common interest. In this case, the direct benefits would be shared among a limited number of States. This status is to be assigned in effect only to those projects undertaken by a subset of Member States.

The report also addressed environmental protection and public participation. The negative impact of certain water management projects led both organisations—the OMVS in 2002 and the NBA in 2008—to give these issues more central consideration. In particular, both the Senegal River Water Charter/*Charte des eaux du fleuve Sénégal* and Niger Basin Water Charter endorse the “polluter-pay” principle and the principle of prevention, while establishing shared objectives concerning water quality. The inclusion of civil society seems to have become a prerequisite of decision-making processes for the successful implementation of plans, in particular when it comes to constructing a dam on either river. The principle of public involvement has been institutionalised through the creation of consultation fora, like the Local Coordination Committees (French acronym CLC) in the OMVS context and the National User Organisations (French acronym CNU) in the NBA context.

b. Expert discussion with the audience

During the experts’ engagement with the audience, certain points were considered in depth. First of all, the discussions emphasised that the objective of implementing common facilities on the Senegal river depended to the willingness to create joint, indivisible ownership among the states. Further questions were raised regarding the nature of the benefits to be shared. The experts suggested that the benefits should be calculated as much at a global level as at the level of the watershed alone. Approaches confined to the national level should ultimately give way to analyses which take into account the needs of the riparian populations themselves—indeed, which integrate those populations directly into the institutional decision-making. During the discussions, Integrated Water Resources Management (IWRM) was also held up as an important factor to take into account in determining the division of benefits.

Second of all, the invited experts underscored the point that water-based infrastructure provides both material and immaterial benefits. While the first category includes economic benefits, immaterial benefits are connected to the broader needs of the local population and the protection of aquatic ecosystems. For example, it is necessary to ensure that watercourses are maintained at a flow level sufficient to meet the potable water needs of the riparian population.

The third issue discussed was the utility of the notion of common facilities. Some emphasised the need to clarify the definition of the concept, and fill out its implications. The experts indicated that the concept could contribute to the reinforcement of an idea of common space linked to an international watercourse. The discussions also touched on the importance of shared financing for large projects. In light of the practice of OMVS, the experts suggested that this way of doing things improved relations with external donors, like the World Bank and the Islamic Development Bank. Echoing the morning's discussions, participants underlined financial arrangements as a critical issue in the management of shared infrastructure. In reality, in the OMVS context, States borrowed in their own name, even for investments undertaken by the organisation as a whole. The contracting State is thus the sole debtor and this remains the case even if it decides to leave the organisation. This mechanism contributes a degree of stability in project governance and consolidates a spirit of shared enterprise, insofar as States find themselves obligated to cooperate if they want to preserve their rights. Private investment also plays an increasingly important role in project financing, via so-called public-private partnerships.

Risk management also plays a significant role in the determination of costs and benefits. A critical perspective on the notion of benefit sharing was also brought up. In this context, it was recalled that each state should be able to evaluate and determine the costs and the advantages of a river infrastructure project. From this perspective, the experts noted that economic, social and environmental risks must all be considered.

Conclusion of the Round Table

Laurence Boisson de Chazournes, Professor at the Faculty of Law and Director of the Platform for International Water Law, concluded the roundtable by underlining the particularities of the two basin organisations. The practice of the OMVS in the governance and operation of its common facilities can inform the legal and institutional development the NBA in these areas, while obviously taking into account both local geography and socio-economic particularities of the Niger basin. She also indicated that the protection of the environment and public participation are factors which should be taken into account during the implementation of IWRM and benefit sharing. The analysis of economic advantages earned from hydroelectric facilities should proceed hand-in-hand with studies on the social and environmental benefits they will have for riparian populations. The joint management of both the Niger and Senegal river basins may contribute to peace and security in this region of Africa.

Key Lessons

In light of the results of the Round Table, a certain of key lessons might be identified:

- Each river basin organisation has its own particular traits. As a consequence, the effective operation of basin institutions flows out of multiple factors but the level of homogeneity between the parties seems to weigh in favour of effective coordination. From a methodological perspective, the comparative approach allows the examination of the factors unique to each case while

facilitating the identification of factors that can explain differences in their development pathways.

- The development of hydroelectric facilities on international waterways creates opportunities for cooperation between riparian states and facilitates inter-state cooperation while supporting the continued development of river networks.
- Multi-sectoral development programs (encompassing energy, agriculture, and industry, as well as the provision of drinking water) foster benefit sharing.
- The establishment of common facilities plays a significant role in constituting an international watercourse as a shared space of integration among States and populations.
- Benefit sharing is a multifaceted concept which includes not only the economic gains earned from infrastructure projects located on international watercourses, but also the social and environmental benefits that infrastructure has for riparian populations.
- The practice of the OMVS and the NBA each provide examples in which consultation with riparian populations plays an important part in decision processes throughout the conception and implementation of hydroelectric projects. Their practice also takes care to prevent negative environmental impacts, especially on aquatic ecosystems, from the initial decision to the completion of those projects.

**COOPERATION AND BENEFIT SHARING
IN THE SENEGAL AND NIGER RIVER BASINS**

24 September 2015

WORLD METEOROLOGICAL ORGANIZATION (WMO)

7bis avenue de la Paix, 1211 Geneva
2nd Floor, *Kruzel Hall*

Register before **14 September 2015** with Dr Mara Tignino (mara.tignino@unige.ch).
Presentation of a valid ID will be required.

Within the context of the Water Hub's activities, the purpose of the high-level Round Table on "Cooperation and Benefit Sharing in the Senegal and Niger River Basins" is to identify good practices and examine the benefits of water management cooperation in order to draw lessons for river basins elsewhere. This initiative puts into practice the Water Hub's mission in networking, education, and knowledge as well as its role as a think-tank. River infrastructures on international watercourses can serve many purposes, including producing hydroelectricity, storing water for irrigation, providing water to the riparian population, improving navigation or preventing floods. These structures offer riparian States opportunities for cooperation. The cooperation frameworks of the Senegal and Niger river basins are unique in their treatment of common facilities and other national projects on international watercourses. The practice of the Senegal River Basin Development Organisation (OMVS), the Management and Operation Agencies of the Diama Dam (SOGED) and the Manantali Dam (SOGEM), and the Niger Basin Authority (NBA) will be analysed and discussed, together with their innovations in the area of benefit sharing.

9h-9h30 Greeting of participants and Welcome Coffee.

9h30-10h00 Opening

Mr. François Münger, Manager of the Geneva Water Hub and Swiss Special Envoy for Water

H.E. Éloi Laourou, Ambassador, Deputy Permanent Representative, Embassy and Permanent Mission of Benin in Geneva.

**SESSION 1: THE EVOLUTION OF COOPERATION FACTORS
WITHIN THE NIGER BASIN AUTHORITY (NBA) AND THE SENEGAL
RIVER BASIN DEVELOPMENT ORGANISATION (OMVS): WHAT
ARE THE LESSONS FOR THE WORLD'S OTHER RIVER BASINS?**

MODERATOR: *Ms. Marie-Laure Vercambé*, Director of the Water for Life and Peace Programme of Green Cross International

10h00-10h15 Cooperation Factors in Transboundary Watersheds: Lessons from the OMVS and the NBA – **Dr Christian Bréthaut**, Senior Lecturer and Director of the Research & Knowledge Component of the Geneva Water Hub, Institute for Environmental Sciences, University of Geneva, and **Dr Thomas Bolognesi**, Senior Lecturer, Institute for Environmental Sciences, University of Geneva.

10h30-11h15 **Expert presentations**

- **Mr. Tamsir Ndiaye**, General Director, Diama Dam Management and Operation Agency (SOGED), Senegal River Basin Development Organisation (OMVS).
- **Mr. Aminou Tassiou**, Former Minister of Water of the Republic of Niger and Consultant for the World Bank on the Niger river basin.
- **Professor Akambi Afouda**, University of Abomey-Calavi (Benin), Chair of the Global Water Partnership in West Africa (GWP-West Africa).

11h15-12h00 **Discussion with participants**

12h30-13h30 **LUNCH BREAK**

SESSION 2 : COMMON FACILITIES AND BENEFIT SHARING IN THE SENEGAL AND NIGER RIVERS: WHAT ARE THE LESSONS FOR THE WORLD'S OTHER RIVER BASINS?

Modérateur : **Professor Makane Moïse Mbengue**, Faculty of Law and Institute for Environmental Sciences, University of Geneva, and Member of the Platform for International Water Law.

13h30-13h45 The Status of Common Facilities and Benefit Sharing in the Niger and Senegal River Basins – **Dr Mara Tignino**, Senior Lecturer and Coordinator of the Platform for International Water Law, Faculty of Law, University of Geneva and **Mr. Komlan Sangbana**, Researcher, Platform for International Water Law, Faculty of Law, University of Geneva.

13h45-14h30 **Expert presentations**

- **Mr. Tamsir Ndiaye**, General Director, Diama Dam Management and Operation Agency (SOGED), Senegal River Basin Development Organisation (OMVS).
- **Mr. Aminou Tassiou**, Former Minister of Water of the Republic of Niger

- **Professor Akambi Afouda**, University of Abomey-Calavi (Benin), Chair of the Global Water Partnership in West Africa (GWP-West Africa).

14h30-15h15 Discussion with participants

15h15-15h30 Conclusions

Professor Laurence Boisson de Chazournes, Faculty of Law, University of Geneva and Director of the Platform for International Water Law.

ANNEX II
Round Table Participants

**COOPERATION AND BENEFIT SHARING
IN THE SENEGAL AND NIGER RIVER BASINS**

24 September 2015

Name	Professional title and affiliation	Email
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	Development and Cooperation	
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