



UNIVERSITÉ  
DE GENÈVE



## Transboundary Governance in the Senegal and Niger River Basins:

### Historical Analysis and Overview of the Status of Common Facilities and Benefit Sharing Arrangements<sup>1</sup>

Dr. Thomas Bolognesi / Dr. Christian Bréthaut / Dr. Komlan Sangbana / Dr. Mara Tignino

University of Geneva, Geneva Water Hub

---

#### I. HISTORICAL ANALYSIS AND IDENTIFICATION OF KEY DRIVERS OF CHANGE

The Organization for the Development of the Senegal River (*Organisation pour la Mise en Valeur du Fleuve Senegal* - OMVS) and the Niger Basin Authority (NBA) are characterized by the introduction of a robust framework for cooperation covering such aspects as the exchange of information, political and financial dimensions and coordination mechanisms, planning and public participation. Featured as examples of good practice in trans-boundary cooperation, their actions cover over a dozen key sectors of economic development.

The operating mechanisms of these two institutions represent real exceptions at the international level. These include the characteristics of certain co-ownership arrangements on water infrastructure, the trend towards integration of national regulatory frameworks through a forum for cooperation, and the granting of specific skills for the implementation of programmatic activities. Their success notably helps to reflect on (i) the concept of cooperation, by identifying favorable factors rather than barriers; and on (ii) the conditions for implementation illustrated by these singular models.

#### Organization for the Development of the Senegal River (OMVS)

The history of the OMVS is marked by different governance phases, four of which appear to us crucial. The first (1820-1963) began during the colonial period and lasts until the independence of the riparian States. The second (1968-1973) was marked by the great drought of the Sahel as an important engine for the definition and implementation of trans-boundary river management. The third phase (1974-1988) includes the birth of the OMVS and the regulation of river flows. Finally, the last phase (1990-2002) highlights the emergence of environmental issues within the governance system.

---

<sup>1</sup> This paper is a summary Policy Briefs produced by the Geneva Water Hub and available for download (in French) here: <https://www.genevawaterhub.org/resource/policy-brief-ndeg4-gouvernance-transfrontaliere-du-senegal-et-du-niger-analyse-historique> and here: <https://www.genevawaterhub.org/resource/policy-brief-ndeg5-status-common-facilities-and-benefit-sharing-senegal-and-niger-river>, as well as the Summary Report of the Roundtable discussion on “*Cooperation and Benefit Sharing in the Senegal and Niger River Basins*”, hosted by the Geneva Water Hub in September 2015. This event notably received inputs from the following key experts: **M. Tamsir Ndiaye**, Directeur général de la société de gestion et d’exploitation du barrage de Diama (SOGED), OMVS; **M. Aminou Tassiou**, Ancien Ministre de l’Hydraulique de la République du Niger; and **Prof. Akambi Afouda**, Professeur à l’Université Abomey-Calavi (Bénin), Président du Partenariat Ouest-Africain de l’Eau (GWP-Afrique de l’Ouest). More info here: <https://www.genevawaterhub.org/news/round-table-cooperation-and-benefit-sharing-senegal-and-niger-river-bassins>

Table 1: Synthesis of drivers of change in the governance of the OMVS

	Transition 1 (1973)	Transition 2 (1988)	Transition 3 (2002)
Uses	Primarily irrigation	Irrigation Navigation Water security	Irrigation Navigation Hydropower
Political and economic factors	Exclusion of Guinea following conflict with Senegal	Definition of the financial breakdown Senegal : benevolent hegemony	Senegal as regional engine
Resource	Drought in the Sahel	Climatic hazards and maintenance of downward trend in water availability	Flow regulation
External factors	Drought in the Sahel	Investment costs borne by foreign donors	Intensification of environmental norms and emergence of the IWRM paradigm
Internal factors	Marginalization of Guinea	Finalisation of hydropower projects	Reintegration process for Guinea (2006)

### Niger Basin Authority (NBA)

The NBA is characterized by a turbulent history and a governance framework that has undergone many changes. We see this evolution of the governance system through four periods. First, we focus on the 1950 to 1964 period marked by the transition from the colonial period to independence. We then observe the advent of the NBA during the 1979-1980 years. In the late 1980s, the NBA enters a third phase, characterized by a series of challenges and adjustments in the governance system. Following this “crisis” phase, we note signs of change in the institutional paradigm starting in the 2000s, driven by the desire to improve the organization’s performance *per se*.

Table 2: Synthesis of drivers of change in the governance of the NBA

	Transition 1 (1980)	Transition 2 (1987)	Transition 3 (2010)
Uses		Strong development of hydropower as of 1970	Increase in municipal uses in the early 2000s
Political and economic factors	Weak and hieratic rates of growth in the 80s	Evolution in the distribution of contributions	Stabilization of economic growth in the region
Resource	Drought in the Sahel	Degradation of water availability	Regulation of river flows
External factors	Recent independence		Investments by foreign donors Development of bilateral agreements
Internal factors	Failure of the Niger River Commission (NRC)		Lack of « shared vision »

### Main Drivers of Change

Our analyses of the Senegal and Niger rivers both show how their governance is characterized by a deep cooperation between riparian States at the catchment scale. These two examples, often seen as cases of "good practice", nevertheless differ in terms of how cooperation is implemented. The analytical variables that we use (evolution of the main uses of water, changes in the political-economic structure, climate changes, external factors, internal factors) enhance our understanding of the factors distinguishing the two cases.

- **Evolution of the Main Water Uses**

Although the water uses remained primarily agricultural, the development of hydropower induced an intensification of cooperation, especially financial and technical, to ensure the infrastructure’s functionality. The benefits provided for other uses by the improvement of water security for the countries also encourage cooperation. The OMVS provides a concerted and redistributive development model (co-ownership of water works between riparian countries and independent

operator) between different types of uses. The existence of third-party operators allows for a quick development of managerial and technical capabilities while satisfying the need for economic efficiency. The situation of the NBA is notably characterized by policies that are primarily dependent on the national scale and on the implementation of numerous bilateral agreements, recalling the strong heterogeneity of preferences from within the member countries.

- **Evolution of the Political and Economic Structure**

As the primary economic engine for the region, Senegal appears to play the role of a "*benevolent hegemon*" in the configuration of OMVS actors. This role seems to have helped to bring the parties together around a shared vision of the river. The stability of the governance framework seems to have favored the inflow of financial resources at an early stage of cooperation. In parallel, we note that the member countries benefit from highly interconnected economic dynamics, in addition to being relatively good and predictable. This economic environment is particularly favorable to cooperation. Conditions that are particularly conducive to cooperation surround the OMVS, which has demonstrated its ability to adequately address challenges.

For their part, members of the NBA have to contend with strong economic heterogeneity, both in terms of dynamics and content, making cooperation more complex. To illustrate, members of the OMVS all have common borders, speak the same language, share relatively similar colonial pasts and "administrative cultures". However, in the NBA, some countries are not neighbors, several official languages are spoken, and three different colonial powers occupied the area in the past. After decolonization, countries of the NBA experienced an economically unfavorable 1980 decade. This instability did not allow the parties to meet in the same intensity and the river did not experience a dynamic similar to the example of the Senegal River; which explains the necessary restructuring of 1987 and the bilateral integration process. Furthermore, this configuration of more and diverse actors as in the case of OMVS is more conducive to "free-rider" strategies, or the temptation to enjoy the gains from cooperation without participation. This helps to explain why the NBA was reorganized through the linking of their efforts to the potential gains from cooperation. More recently, the 2008 Water Charter also aims to avoid this situation by establishing a real basin organization, and by giving it financial and institutional capacities.

- **Characteristics of the Resource**

The Great Sahel drought (1968-1973) opens a phase of increasing pressure on the resource, thereby transforming the Senegal and Niger regimes. While rainfall and river flows decrease by about 30%, people become increasingly sedentary, concentrated, and vulnerable to climate hazards (floods and drought). Also, while the regime change is marked in the late 1960s, the degradation of water availability is prolonged for decades and an effective response is not found until the 1990s in both watersheds, thanks to the development of water infrastructure. This evolution in the characteristics of the resource is critical, as it directly affects water uses by leading to the development of hydropower, agriculture and navigation.

In parallel, this change in water regimes highlights the challenge of water security, which previously manifested itself through a number of natural disasters, with increasing intensity, and reduced water availability. It has been suggested that this enhanced cooperation in the face of decreasing water security in the region tends to demonstrate a link between water security and growth, and thus the long-term benefits of investments dedicated to this objective of water security.

## **A Perspective on Coordination**

Given the level of integration and resilience, OMVS and the NBA represent two case studies which – despite their geographic proximity – diverge considerably in their internal characteristics and coordination contexts. Each party found itself benefitting from coordination despite the fear of opportunistic behaviors (free-riding). To overcome this fear, transparency and exchange of information on earnings and interactions emerged as the essential cornerstones of greater coordination.

After avoiding the first hurdle (opportunism), the dilemma of the form/path for coordination presents itself. The response from different organizations varies according to the actors' configuration. The OMVS includes only four members whose economic interests are close and very interdependent. Moreover, asymmetries foster the emergence of a hegemon directing negotiated actions and avoiding a political-economy of the status quo – a role played by Senegal.

The NBA is dealing with a much larger number of actors and with asymmetries which complicate the identification of win-win situations and the accounting of preferences. Therefore, the risk of inaction is greater. The history of the NBA highlights this difficulty to go beyond the *status quo*, particularly through the failures of previous organizations and successive restructuring efforts. The definition of a "*shared vision*" for the action of the NBA and the matching of costs and benefits into coordination efforts clearly illustrate the progress made towards revitalization in collaborative action. It can be noted that the signing of supporting bilateral agreements helps to avoid the complexity of broadened pluralism.

## **II. COMMUNITY OF INTERESTS BETWEEN RIPARIAN STATES OF THE SENEGAL AND NIGER RIVERS**

States bordering the Senegal and Niger River basins have long recognized the existence of a community of interests and rights around shared resources and its corollary: a common and integrated management approach for these resources. In this context, the idea of joint works and benefit sharing emerged as means of realizing the common interests in these two basins. The Organization for the Development of the Senegal River (OMVS) has implemented a special legal regime since 1978 with the adoption of specific instruments for the management and operation of joint works. Within the Niger Basin Authority, States decided to initiate a process called "*Shared Vision*" as of 2002, with one tentative result being the determination of a plan for infrastructure in the Niger River.

### **The Status of Hydropower Facilities along the Senegal and Niger Rivers**

The OMVS regime adopted the "*common works*" formula. The legal regime applicable to these works is defined by the 1978 Convention on the Legal Status of Common Works and the 1982 Convention Regarding Financing Arrangements for common Works. According to Article 2 of the Bamako Convention of 1978, is considered common work any work subject to a legal instrument declaring the facility as "*common property*". The 1978 Bamako Convention provides a precise – albeit non-limiting – list of common facilities. Are declared as public works: "*the Manantali Dam, Diama dam, the river-sea port of St. Louis, Kayes the river port and any ancillary facilities or annexes*" (art. 3).

The « *common and indivisible property* » on the facilities is also materialized through the establishment of a financing mechanism and a mechanism for the particular management of these facilities. On the financial level, OMVS Member States act as co-guarantors for the repayment of any loans extended to the Organization for the construction or operation of jointly-managed facilities. This carries the obligation for each co-guarantor state to contribute to the financial resources of the Organization. Thus, each Member State has an obligation to take all appropriate measures to contribute the necessary funds to the Organization, within the appropriate period, in order to prevent a default with creditors. A State breaching this obligation will bear the entirety of financial charges arising from the delay, including expenses related to any work and engineering contracts on joint facilities. Another aspect of the financial component is the capacity of the members of the Organization to borrow individually or jointly for the construction or operation of common infrastructures. Member States give back the loans to the Organization, which ensure the control and management of joint infrastructure on behalf of the OMVS's Member States (Convention regarding Financing Arrangements for Common Works 1982).

The "*common and indivisible property*" status for facilities also carries the idea of their common management. This joint management is realized through management agencies under the supervision of the OMVS. Created in the form of inter-state owned companies, these agencies are responsible for the operation and maintenance of common facilities. Thus, in 1997 two Conventions established two management and operation companies of these facilities: the International Convention Creating the Diama Management and Operation Agency (hereinafter SOGED Convention) and the Convention on the Manantali energy management Agency (hereinafter SOGEM Convention). In turn, the Agency for the management and operation of navigation was created in 2011.

In the Niger basin, although infrastructure issues initially fed the discussions on the need to institutionalize cooperation, the regime applicable to infrastructure is less dense and its materialization is currently ongoing. Unlike the case of Senegal, there is to date no international instrument that is specifically dedicated to the issue. But arrangements for observing the contours of the plan are contained in the instruments adopted in the "*Shared Vision*" process that was launched in 2002.

Two categories of shared infrastructure are distinguished in the Niger basin, namely public works and works of common interest. The first designates "*a facility which the Member States of the Niger Basin Authority have decided through a legal act to make their common and indivisible property*" (Article 1, para. 21 Water Charter of the Niger basin, 2008), while the second designates "*a facility which the Member States of the Niger Basin Authority have decided through a legal act to make their common and indivisible property*" (Article 1 para. 22). In the Niger context, the idea of "*common and indivisible property*" of all Member States is considered only in cases of joint facilities. The facilities of common interest are restricted to a limited number of States and the ABN is only considered as a project manager acting on behalf of States.

### **Benefit Sharing**

The concept of benefit sharing plays an important role in the cooperation between the riparian States and the management of hydroelectric facilities in the Senegal and Niger basins. The principle of "*common and indivisible property*" which governs the common facilities in the Senegal River Basin involves the sharing of benefits between all OMVS Member States. This sharing is to ensure in particular that the direct benefits generated by the facilities are distributed so as to balance the share of benefits received and the share of investments made in each State. It is notably stated in article 12.1 of the 1978 Bamako Convention on the Legal Status of Common Works, which provides that "*the investment costs and operational fees are to be allocated between co-owner States on the basis of the benefits that each co-owner state will-have from the operation of common works*". The distribution calculation is made according to the sectoral allocation keys developed by agreement among States. This equitable basis notably has a direct impact on how the common funding mechanism works. Thus, the contribution of an OMVS Member State as co-guarantor on the repayment of loans contracted by the Organization is proportional to his participation in the costs and expenses of such works. Similarly, direct and joint engagements of each borrowing Member State for the implementation and operation of joint works is limited to his share of the contribution to the costs and expenses.

The idea of benefit sharing also feeds into the exploitation and maintenance of shared facilities in the Niger basin. As is the case with the OMVS, there is a partition made on the basis of equity which consists in parallel investment costs and direct benefits derived from the facilities. However, this division is different depending on whether we are considering joint works or works of common interest. Despite the lack of practice, common works suggest a system of benefit sharing comparable to that of the OMVS. The common and indivisible property regime which defines the management of resources in the Niger basin involves sharing benefits between all nine riparian States.

For more details on the subject, including the references used in the paper, we kindly invite you to consult the relevant full-length documents available on the Geneva Water Hub:

[www.genevawaterhub.org](http://www.genevawaterhub.org)