

Case Study of Transboundary Dispute Resolution: Organization for the Development of the Senegal River (OMVS)

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1. Case summary

<i>River basin:</i>	Senegal River (Figure 1)
<i>Dates of negotiation:</i>	Organization formed 1972
<i>Relevant parties:</i>	Mali, Mauritania, Senegal (directly); Guinea (indirectly)
<i>Flashpoint:</i>	None—Independence of countries provided opportunity for multi-lateral development
<i>Issues:</i>	Stated objectives: develop the basin by facilitating closer coordination beyond the water and agricultural sectors
<i>Additional issues:</i>	Water-related: hydropower, artificial flooding; Non-water: poverty, Guinea's relationship with OMVS states
<i>Excluded issues:</i>	None
<i>Criteria for water allocations:</i>	"Principle of benefit sharing" looks at benefits instead of water allocation
<i>Incentives/linkage:</i>	Financial: Cost-sharing plan based on each state's exploitation benefits; Political: Joint management has built trust between basin states
<i>Breakthroughs:</i>	Basin states ignored unilateral approach in favor of a joint management system.
<i>Status:</i>	Continual progress to strengthen agreements between basin states, the most recent the signing of the Water Charter in 2002; attempts to increase the participation of Guinea in basin-wide decisions through the OMVS.



Figure 1: Map of the Senegal River Basin (TFDD, 2007).

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2. Background

The Senegal River, the second-largest river in Western Africa, originates in the Fouta Djallon Mountains of Guinea where its three main tributaries, the Bafing, Bakoye, and Faleme contribute 80% of the river's flow. After originating in Guinea, the Senegal River then travels 1,800 km crossing Mali, Mauritania and Senegal on its way to the Atlantic Ocean.

Following the independence of the basin countries, tension remained in the region due to the instability of the political powers and the influence of neo-colonial states such as the United States and the Soviet Union. Throughout the turmoil following World War II into the 1970s, the Senegal River continued to be a common link between the basin countries. There was a desire between them to cooperate in the management of the basin so that all countries would benefit from its development. This aspiration has been carried into the twenty-first century as Guinea, Mali, Mauritania and Senegal work cooperatively toward more effective basin management.

The river is a key resource for all three countries. Large herds of cattle, camels, goats and sheep migrate season to season across these borders and herders rely on this water source to sustain their herds. The basin region receives only an average of 660mm of rainfall per year, therefore the Senegal river waters represent the key to agriculture in the region. On the left bank, the surface area of community-based irrigated fields grew from 20 hectares in 1974 to 7,335 hectares in 1983 and 12,978 hectares in 1986. After agriculture, fishing is the largest economic activity in the region. Other river based economic activities include sugar cane production, rice farming and, to a lesser extent, mining.

Two dams, Manantali and Diama, were built in 1986 and 1988, respectively, in order to provide fresh water for agriculture and municipal uses and, in the case of the Manantali Dam, eventually to produce hydroelectric power for the region. These two dams were part of an economic growth strategy for the region that would reduce the investment risk and reduce poverty by increasing income-generating activities. The Manantali Dam was put on line in 2002 and is now supplying the three basin countries with 547 gwh/yr.

3. The problem

There are a few areas of concern in regards to the Senegal River basin. The first is that of the climate. Beginning in the 1960s, the region suffered a continuous drop in rainfall until the mid-1980s. Because of the local populations' dependence on rainfall for crops, the droughts caused severe disruption in the economies of the basin states. The impacts to the economy were a result of the affects of the drought on the environment. Erosion, saltwater intrusion, drop in groundwater, vegetation loss among other impacts were felt in the entire region resulting in the exodus of large numbers of inhabitants from the rural areas towards the cities. The extreme poverty in the region makes these populations very vulnerable to changes in the climate.

In the 1960s and 1970s this problem led the countries of the Senegal River basin to look at ways to work together to mitigate the disastrous affects of severe droughts. Unlike other international water bodies, cooperation over this basin did not grow out of a conflict over use of the Senegal River resources. Instead the catalyst for cooperation was the vulnerability of the populations of the basin states. These four countries believe that collaboration on the development of this resource would improve the standard of living of all involved.

Problems in the basin today focus on the detrimental health and environmental and agricultural impacts of the two dams. Seasonal flooding and water movement decreased dramatically after the dams were built. This has caused an increase in the incidence of numerous waterborne diseases: diarrhea, schistosomiasis and malaria. The reduction of flooding also prevents pollution from industrial agricultural from flushing out of the basin. The dams have caused a reduction in pastureland, degradation of river fisheries, increased soil salinity and riverbank erosion. Traditional agricultural and pastoral productions systems have been superceded by irrigated, in some cases industrial size, agriculture. This emphasis on irrigation has created problems for social cohesion and access to land in some areas of the river basin, and in some cases artificial flooding has been so poorly planned that it has wiped out crops.

The basin countries expected to see a decrease in the rural-urban drift once irrigation was more feasible, but this has not happened. Politics also play an important role in decisions regarding the yearly artificial flood levels; they often vary according to the policies of current basin country governments (see *Organization for the Development of the Senegal River*, pp. 448–461 for more information on the positive and negative effects of the dams).

A separate, but equally worrisome issue is the pressure on this resource from a rapidly increasing river basin population: 16% of the population of the three river basin countries—Mali, Mauritania, and Senegal—live in this basin, and this population is growing at a rate of 3% per year.

4. Attempts at conflict management

During the 1960s, as the newly independent African states established their national identities and put in place their national infrastructures, there was a large movement among the Senegal River basin states to act jointly in the development of the basin.

The first step to this mutual development of the Senegal River basin came in 1963 when, after several meetings between the basin states, the four countries signed the Bamako Convention, which recognized the Senegal River as an international waterway and created the Interstate Committee (CIE, *Comité Inter-Etats pour l'Aménagement du fleuve Sénégal*) to oversee its development. The CIE's main goal was to use a multilateral approach when developing technical capacity and financial support for the Senegal River. The CIE and the basin states were encouraged to present individual proposals to international aid agencies for funding, but not without approval of the CIE. This would guarantee coordinated management of the basin, and prevent any unilaterally beneficial projects. The Bamako Convention, and a year later, the Dakar Convention, introduced a framework for future development of the basin for mutual benefit of all countries.

In meetings between the heads of state of the four countries in 1965 and 1966, proposals were made to improve the already existing infrastructure of the CIE and move beyond the Senegal River basin to look at linkages between other West African rivers. The goal was to reinforce the idea of cooperation through the development and integration of the region's economies. However, due to tensions that arose between Senegal and Guinea in January of 1967, Guinea suspends its participation in the CIE. Mali and Mauritania, still interested in the regional integration of the Senegal River basin, managed to bring all four heads of States back to the negotiating table in November of 1967 in Bamako, Mali, to revive collaboration.

In late 1967, several ministerial meetings took place to revive the idea of cooperation. These meetings resulted in the Labé Convention, signed on March 24, 1968, which created the Organization of Boundary States of the Senegal River (OERS, *Organisation des Etats Riverains du Sénégal*). The goals of OERS were more comprehensive than those of the CIE. Because its objectives were not limited to the valorization of the basin, the member states attempted to politically and economically integrate the basin through the standardization of legislation, the improvement of education and the further breaking down of borders to allow increased trade and labor movement. This initiative demonstrated the interest these four countries had in treating the river basin as an international resource.

The economic cooperation of the member states of OERS advanced with various ministerial-level meetings in the transportation and economic sectors, but when political instability of the basin occurred in 1970, difficulties arose within the organization. The nature of OERS was such that decisions were made unanimously, and when Guinea was absent for two meetings in 1971 (due to regional political instability), negotiations came to a halt. Consequently, Guinea withdrew from OERS in 1972 and the organization became defunct.

The desire for regional integration remained with Mali, Mauritania, and Senegal, however, and the three countries established the Organization for the Development of the Senegal River (OMVS, *Organisation pour la Mise en Valeur du fleuve Sénégal*). One of the most important aspects of this convention is that Guinea did not participate, but it did not object either, which has allowed the process to move forward with less difficulty. The organization created two types of shared infrastructure, physical

and institutional, which were designed to accomplish the goals of OMVS:

- The development of food security for the populations of the basin
- The reduction in the economic vulnerability of OMVS states to external factors such as climate changes.
- The acceleration of the economic development of member states the preservation of ecosystem balance in the sub-region and particularly in the basin
- Secure and improved revenue of the valley populations

By the early 1990s when Senegal began to realize that the OMVS objectives were not going to be obtained, they drew up The Master Plan for the Integrated Development of the Left Bank. This plan shifted development focus from the establishment of irrigated agriculture to a more integrated form of development. They would continue to promote irrigated agriculture without jeopardizing other uses of the water such as flood-recessional farming while at the same time promoting an artificial yearly flood. However, the OMVS felt that this plan was an affront to the authority of the OMVS, and did not allow its implementation.

5. Outcome

The history of cooperation over this river basin has led to numerous multilateral agreements, projects and organizations over the last 25 years. The Manantali Dam has been working at full capacity since May 2003 providing each of the basin countries with electricity based on the amount the invested in the dam project. Mali is receiving 52% of the benefits, while Mauritania receives 15% and Senegal 33%. An additional benefit of this dam has been the fiber optic cables used for the transmission lines, which telecommunications companies can also use (see Organization for the Development of the Senegal River, pp. 448–461, for a more complete list of positive and negative effects of the dams).

The Senegal River Charter, signed in 2002, sets the principles and procedures for allocating water between the various use sectors, defines procedures for the examination and acceptance of new water use projects, determines regulations for environmental preservation and protection and defines the framework and procedures for water user participation in resource management decision-making bodies.

Following this charter, the GEF funded a four-year Water and Environmental Management Project to provide a framework for sustainable development, and trans-boundary land-water management in the Senegal river basin. The project has five goals:

- (1) to build capacity,
- (2) to effectively manage data and knowledge,
- (3) to complete the Transboundary Diagnostic Analysis and Strategic Action Program,
- (4) to act on local priorities, and
- (5) to initiate public participation and awareness.

6. Lessons learned

- *Stakeholder participation should be included at all levels of decision-making processes for optimal mutual gain.*

When local populations were not included on the decision-making processes within the Senegal River basin, there tended to be frustration, confusion and economic losses directly as a result of not participating. Participation by all stakeholders can only benefit all groups involved in making agreements more sustainable, mutually beneficial and efficient.

- *Lack of participation of all basin nations weakens the overall negotiations and creates opportunity losses for those not participating.*

Guinea, not party to the OMVS organization, has not experienced the development benefits of the other three countries in the basin. As a result, they are lacking water resource management infrastructure, a reliable energy source and water supplies.

- *Mutually beneficial projects and integrated investments create good neighbors.*

As a result of the OMVS and the design and implementation of joint projects, the relations between

the countries has improved and economic development has increased thereby making cooperation rather than conflict a meeting point with regards to the Senegal River.

7. Creative outcomes resulting from resolution process

The mutually beneficial design of the OMVS and how it redistributes the economic benefits based on how much each country puts into the project creates incentives and equality in the development process. Even though Guinea dropped out of the cooperation process officially in 1967, Mali, Mauritania and Senegal have allowed them to be an observer thereby reducing the potential for conflict within the basin. Full participation would be ideal, but under the circumstances, it is better to have Guinea present and make the process transparent rather than exclude them altogether.

PASIE, Plan d'Attenuation et de Suivi des Impact sur l'Environnement, was formed in 1998, an entity with its sole purpose to investigate the environmental impacts of the development and distribution of power from the Manantali hydroelectric power station.

8. Timeline

- 25 July 1963 Guinea, Mali, Mauritania and Senegal signed the Bamako Convention for the Development of the Senegal River Basin thereby creating the Interstate Committee.
- 7 Feb 1964 Signing of the Dakar Convention.
- Nov 1965 and 1966 The heads of state of Guinea, Mali, Mauritania and Senegal meet to discuss the promotion of regional integration
- Jan 1967 Guinea suspends participation with the Interstate Committee due to tensions with Senegal.
- Nov 1967 Through the efforts of Mali and Mauritania, the four heads of state met again in Bamako.
- 26 May 1968 Through the Labé Convention, the Interstate Committee is replaced with the Organization of the Boundary States of the Senegal River (OERS).
- 1971 Due to political instability, Guinea does not attend two OERS meetings and later withdraws from the organization.
- Jun 1971 The Council of Ministers acknowledge the problems arising within OERS.
- 11 Mar 1972 Mali, Mauritania and Senegal declare OERS void and sign the Nouakchott Convention creating Organization for the Development of the Senegal River (OMVS) reconfirming it's international status and the pursuit of OERS same objectives.
- Dec 1975 Restructuring of OMVS into three entities: Heads of State Summit, Council of Ministers and the High Commission (technical).
- 12 Dec 1978 Convention recognizing the Legal Status of Jointly-Owned Structures.
- 12 Mar 1982 Convention recognizing the Financing of Jointly-Owned Structures.
- 1992 OMVS-Guinea protocol signed outlining framework for cooperation in projects of mutual interest, including permitting Guinea to attend OMVS meetings as an observer.
- 1995 Agriculture Sector Adjustment Program—aims to provide food security, rural incomes, natural resource management through deregulation, reduced state intervention and land-tenure reform.
- 1998 Creation of the Environment Impact Mitigation and Monitoring Program (PASIE) by OMVS.
- 2000 Establishment of the Environmental Observatory by OMVS to monitor environmental change in the Basin as part of PASIE.
- 2002 Water Charter signed and ratified by Mali, Mauritania and Senegal
- 2002 Water and Environmental Management Project funded by GEF
- 2003 Heads of States Summit in Nouakchott, Mauritania. Guinea participates.
- 2004 First Inter-Ministerial meeting between Guinea and OMVS member states in Dakar, Senegal.

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Reference

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