



Governance of International Rivers in Africa and its Potential in the Nile Basin

Africa Water for Peace
Nile For Peace Initiative



Nile for peace Initiative

Introduction

The concept “Governance of International Rivers” has emerged strongly in the 20th century due to the manifestations and dynamism of the international system on all the official, academic, and popular levels, and has been extended to the African contexts as an essential approach to the national security and its theories, and a prerequisite for the developmental agendas and their development aspirations, particularly in light of the intensifying environmental, demographic, and economic challenges.¹ The early signs of these challenges appeared in the sixties of the 20th century, after the end of the colonial era, leading to complete models in Senegal and Niger basins or incomplete models in Nile Basin.²

Amidst all this, this paper highlights the reality of governance of international rivers in Africa by framing them conceptually, analyzing them

academically in the context of Senegal River and Niger River, and monitoring their transformations and potential in Nile Basin.

First – The concept of water governance of international rivers:

The concept of water governance has received growing attention, especially in the academic setting. Several definitions have been developed for this concept, referring in its simplest form to “an integrated set of systems that control the decision making of development and management of water sources, or “the set of systems and rules that determine who gets water, when and how? as well as the mechanisms for making decisions about water? And under what circumstances, and who has the right to water and its delivery”, or “a set of appropriate political, economic and administrative systems for development and management of the water resources and

¹ German development institute, transboundary water management in Africa: challenges for development cooperation, 2006, pp5.

² The bank world, cooperation in international waters in Africa, 17 may 2021, <https://bit.ly/3At6DBd>



Nile for peace Initiative

provision of water services at various societal levels” as defined by “Peter Rogers” in the UN developmental program, or “the set of political, economic, social, and administrative systems for the development, management, and distribution of the water resources” from the perspective of Global Water Partnership Forum.

In this context, and based on the dialectic of the convergence between the foundations of water governance and its content, and the attempt to raise it to the international level and to launch it on the strategies and mechanisms of countries to manage international rivers, it can be defined procedurally as “process of preparing, planning, implementing, and controlling the exploitation of water resources in international rivers, to achieve protection and sustainability of water resources by the riparian countries according to international water law, including the international and regional conventions existing in river basins”.

Second – Models of shared governance of international rivers in Africa:

Governance of international rivers in Africa has become an imperative need in strategic minds, a duty present in their agendas in the African context, which includes within it (9%) of the world’s water, and (14.8%) of its population; to rank second in the world in terms of drought and population. However, not all the models of governance of international rivers of the African context estimated (63) rivers, and collection of (90%) of their water, yielded young fruits. In this context, the models of Niger and Senegal are highlighted.

A. Model of water governance in Niger River Basin

Water governance in the Niger River Basin provided an advanced model for managing water resources and maximizing the fair and reasonable use of them. It was shaped by the historic, climatic, and geographical contexts of the Nile River Basin. It extends with a length of (4200) km in one of the most vulnerable territories to climatic changes in the world, most



fragile, and stable, with (7) countries out of (20) most fragile countries in the world out of (9) countries in its basin in which they share with (28.3%, 23.8, 30.3, 4.6, 1.2, 1%, 3.9%, 2.5%, 4.4%) in favor of (Nigeria, Niger, Mali, Guinea, Cote d'Ivoire, Chad, Burkina Faso, Benin, Cameroon) respectively,³ which can be displayed as follows:

1. Historical and legal contexts:

The early signs of water governance and its legal and regulatory mechanisms were established in the Niger River Basin at the end of the 19th century; as the colonial powers: Germany, France, and Great Britain signed amid Berlin Conference (1885) the initial treaty in the two rivers: Niger and Congo, convention (1904) between France and Great Britain dividing the West and Central Africa on freedom of navigation. With the end of the colonial era, the independent countries commenced to establish

joint customs offices and launch a series of conferences; to lay the foundations of cooperation and governance, foremost of which is the work session between Mali and Nigeria, that determined the terms of joint development of the Niger River Basin, the 16th meeting of the Technical Cooperation Committee in Sub-Saharan Africa in Guinea 1960, the first conference in May 1961, which emphasized the promotion of cooperation between water users and coordination and the dangers of undertaking national projects unilaterally, and the second conference in October 1963, which resulted in signing the law (1963); to renew freedom of navigation in Niger.⁴

These efforts paved the way for the conclusion of a convention (1964), and the establishment of the Niger River Commission "NCR" to regulate agricultural and industrial uses, water resources development, and

³ Hydrological science journal, A study on hydrological series of the Niger river, 17 Jan 2013, <https://bit.ly/368zE7A>

⁴ GIZ, transnational water management in the river Niger basin, access date.4 July 2021, <https://bit.ly/2SMDPmt>



Nile for peace Initiative

navigation. Despite this, slight progress was made regarding the development of river resources; This prompted the countries to hold several reviews of the existing conventions and legal mechanisms and the creation of the Convention (1980), the establishment of the Niger River Basin Development Fund “FONDAS” to revitalize and reactivate the role of the Niger River Commission, and the establishment of the Niger Basin Development Fund “FONDAS”, which was elevated after the cessation of the river flow in Niamey completely in (1985) the limit of its transformation into the Niger River Basin Authority in (1987 to promote cooperation among member states to ensure the integrated development of resources in all areas, especially energy, agriculture, transport, communications and industrial resources for member states, and to authorize it to coordinate national policies to ensure equitable sharing for

water, formulation, and implementation of an integrated basin management plan⁵.

2. Regulatory Contexts

The efforts of the Niger Basin led to the crystallization of an advanced regulatory mechanism between the river administrations in Africa, which includes sub-levels: the Summit of Heads of State and Government, the Council of Ministers, the Technical Committee of Experts, and the Executive Secretariat.

3. Earnings and Returns:

Thanks to the cooperative and development efforts at the end of the seventies (20), the Niger Basin Authority witnessed development at the beginning of the decade (1) of the twenty-first century, as the countries demanded at their summit (6, 7) during (2000:2002) the need to develop a clear and common vision. Heads of the States met in Abuja to renew their political

⁵The world bank, in the Niger basin, countries collaborate on hydropower, irrigation and improved water resource management, 4 march, 2015, <https://bit.ly/3qhh2ov>



Nile for peace Initiative

commitment to managing water resources in a sustainable development manner, and it was agreed on the joint vision “SDAP” as an expression of the commitment of countries to enhance cooperation and share benefits formulated during the period (2002: 2008). In the context of 2008, the Summit (8) was held for the heads and governments of the Niger Basin Authority, and it was agreed to implement several documents, including the investment program for the Niger River Basin for the year (2008: 2027) with a value of (8) billion dollars, including economic and environmental modeling of infrastructure works, including dams and assessment of their benefits and damages, the renovation of three dams”, the establishment of a meeting of donors to implement the priority five-year plan (2008: 2012), the acceleration of the implementation of the “Taoussa” dam in Mali, and the “Kandadji” dam project in Niger.

The adoption of the Water Charter as a legal framework for cooperation in the sustainable development of water resources. The Charter complements the 1980 Convention and sets out the principles and conditions of cooperation between countries, including environmental protection, coordinated governance of water infrastructure, and a system of prior notification with a minimum for national infrastructure works.⁶

In sum, water governance has made progress and gains in the areas of infrastructure, hydropower, and agriculture; Nigeria was able to develop two major dams to generate hydroelectric power, namely Kenji in 1968 with (2000) megawatts, and Geba in 1984 with (1650) megawatts. Cameroon completed the first power plant on the Benue River, the Lagdo Dam in 1982, In Mali, the first dams were built in the inner delta under French rule, which is the

⁶ The world bank, the Niger river basin, A vision for sustainable management, PP60-65.



Nile for peace Initiative

Markala Dam in 1947 and the Selenji Dam in 1982.⁷

However, this did not achieve the specific opportunities and ambitions of the Niger Basin countries. Where those countries planned to plant (2.5) million hectares of arable land, only about (20%) of it was developed, and to generate (30,000) gigawatt-hours, of which about (6000) gigawatts were developed mostly in Nigeria, and exploitation of 6,000 km of navigable waterways, only about 200 km of them are exploited and other ambitions included in the investment plan for the period (2008: 2027), including the "Fomi Dam", which is located on the upper part of the basin in Guinea near the border with Mali, which is a multi-purpose transformational project, given

its potential for upstream storage and significant transboundary benefits in the form of (210,000) hectares of irrigated agriculture, (90) megawatts of hydropower and ensuring minimum low flows in the inland delta in exchange for resettlement of (45,000) in Guinea⁸, and the investment plan in the field of flexibility to meet climate change in the Niger Basin approved in October 2015 ⁹. On February 4, 2020, the integrated program for development and climate adaptation was launched and may benefit more than (1) million in Chad, and includes the rehabilitation and construction of (124) water tanks to irrigate farms and the rehabilitation of (105) water tanks for livestock.¹⁰

⁷ Political geography, fording differences conditions mitigating water in security in the Niger river, 13 oct 2016, pp 76-80.

⁸ The world bank, Niger river basin management project to support institutional strengthening of the Niger basin authority and enhance benefit sharing around the planned Fomi dam, 8 July 2014, <https://bit./3yi5rfg>

⁹ The world bank, 9 countries to collaboratively build climate resilience in the Niger river basin. 25 oct 2015, <https://bit.ly/2ujrirc>

¹⁰ Afrik21, Africa: five key players for better water management on the continent, 25 march 2021, <https://bit.ly/3hwdAJe>



B. The model of shared governance in the Senegal River Basin

The Senegal River and its experience in the common governance among its basin states have attracted most of the attention, as the Senegal River- one of the longest rivers in Africa and the second longest one in West Africa by (1790) km- represents a present model for developing the water governance of international rivers.

1. Historical and legal contexts

The Senegal River has laid out a straight approach in the water governance of rivers, as the climatic and demographic changes along with development requirements have triggered the basin states to aspire to develop the optimum and joint utilization following their independence in the 1960s. Such states accepted to relinquish a part of their sovereignty in exchange for establishing an institutional system that manages the economic benefits, regardless of the ideological differences. An

agreement was signed in 1963 to establish the Supreme Authority for the Management of the Senegal River and was developed to establish the Organization of Senegal River States (OERS) in 1968. The organizational structure of the OERS included (3) levels which are: The Conference of Heads of State and Government, the Council of Ministers and the General Secretariat and it was founded on the principles of equality, equity and solidarity, in addition to unanimous resolutions.¹¹

However, the OERS encountered difficulties before its termination on (March, 11, 1972) and before the establishment of the Senegal River Basin Development Organization (OMVS) to serve as an effective mechanism to manage the Senegal River, maintain the environmental and climatic balance, facilitate cooperation in the framework of researches and the necessary preparations and to establish a legal entity with a legal and independent personality.

¹¹ Ronald Bornstein, "The Organisation of Senegal River States", The Journal of Modern African Studies

(Cambridge: Cambridge University Press, Vol. 10, No. 2 July, 1972), PP., 267- 268.



Consequently, two conventions were signed on March, 11, 1972, in addition to the additional protocols, including the protocol on the legal status of the common works, the protocol on financing for the common works, the framework protocol of cooperation between the OMVS and Guinea, the protocol for the establishment of the Diama Dam Management Company and Manantali Energy Management Company during the years (1978, 1982, 1992, 1997) respectively. The two conventions also adopted the principles of the international water law, particularly the principles of equitable and reasonable utilization and prior notification.¹²

2. Organizational contexts

The common governance in the Senegal River Basin features one of the most organized mechanisms at the African level, represented in the OMVS that brings together (3) states since its convention was signed in (1972), which are: Mali, Mauritania and Senegal in (1972) and

Guinea in (2006). The OMVS also includes some sub-levels¹³, namely: The Conference of Heads of State and Government, the Council of Ministers, the Office of the High Commissioner and the Permanent Committee of Water Resources.

3. Gains and returns

The common governance in the Senegal River has made a significant progress that is represented in developing the Programme for the Mitigation and Monitoring of Environmental Impacts in 1998, establishing the Observatory of the Environment to monitor and manage environmental risks in the Nile Basin in 2000 and turning such observatory into the Observatory of Sustainable Development in 2002, in addition to the signing of the Charter of Waters of the Senegal River by the presidents of Mali, Senegal and Mauritania, which includes a legal provision and three legal attachés. This Charter has encouraged the common

¹² Margaret J, Vick, "The Senegal River Basin : A Retrospective and Prospective Look at the Legal Regime", Natural Resources Journal, (New Mexico: University of New Mexico School of Law, Vol. 46 , Winter 2006),PP., 215- 216 .

¹³ International waters governance, Senegal river Basin: legal basis, access date.30, June 2021, <https://bit.ly/3w6d4xi> .



Nile for peace Initiative

governance of water resources and defined the principles of water distribution as well as the organization of projects and information exchange. Such principles include the equitable and reasonable utilization of water, good governance, the use of negotiation in settling disputes, prior notification requirement, and the formation of a management plan for water for the development of the Basin, under which several development projects were implemented.¹⁴

One of those projects is the “Manantali Dam” whose construction began on June, 1982 in order to sustain the water flow of the Senegal River, to generate 800 GWh per year guaranteed for 9 years, to store 11 mm³ of water and to establish an electrical grid between the three states with about 1500 km in length. This is in addition to the Diama Dam, which was constructed to control water salinity in the Senegal River in times of low water levels and to pump the stored water in times of drought for

the sake of improving the filling of some lakes of the Senegal islands and Lake R'Kiz in Mauritania. Moreover, the Diama Dam contributed to the irrigation of more than 375,000 hectares, in addition facilitating navigation, providing fresh and potable water supplies to urban and rural centers from Nouakchott to Dakar and recharging groundwater.

Speaking of future projects, the OMVS has prepared a number of proposed projects and studies in order to store nearly 23 mm³ of water, accounting for (97%) of the Senegal River flows and to generate electric power of more than (2000) GWh per year through the projects of Felou Dam, Gouina Dam, Koukoutamba Dam, Boureya Dam and Goubassi Dam with a view to generating (350, 620, 858, 717, 104) gigawatts, respectively.¹⁵

¹⁴ Sandra Child(ed.), A handbook for Integrated Water Resources Management in Basin, (Stockholm: Global Water Partnership (GWP) and the International Network of Basin Organizations (INBO), 2009),P.38

¹⁵ Dhanush Dinesh, Bernard Bett (etal) , Impact of Climate Change on African Agriculture: Focus on Pests and Diseases, (Kigali: CCAFS info note, International Center for Tropical Agriculture, may 2015),P.3.



Third: The changes of water governance in the Nile Basin:

Historically, the Nile River and its basin were also subjected to water governance, as it recorded a number of joint cooperative efforts among its states. In the context of bilateral tracks, the 1959 Bilateral Agreement between Egypt and Sudan has led to the establishment of the Permanent Joint Technical Commission for Nile Waters and to the conduction of researches of studies for the optimal utilization of the Nile water. The most prominent projects of such Commission are the Jonglei Canal project, Machar Marshes project and Bahr el Ghazal River project.

In the context of the multilateral tracks, they included the (1967) Hydromet Project after the meeting of Egypt, Kenya, Sudan, Tanzania and Uganda with the United Nations Development Programme (UNDP) and the World Meteorological Organization (WMO), following the sudden rise in Lake Victoria waters, to

prepare studies of the meteorology, behaviors and water levels of the Nile Basin countries and to assess their water balance until the project was completed in (1992). Moreover, such multilateral tracks also included the UNDOGO, which was established in 1983 in the light of the 1980 Lagos Plan of Action¹⁶, and the establishment of Technical Cooperation Committee for the Promotion of Development and Environmental Protection of the Basin (TECCONILE), in addition to the 1992 agreement signed by Egypt, Sudan, Rwanda, Tanzania, Uganda and the Democratic Republic of the Congo, which was activated on January, 1993 until 1998 as well as a series of Nile conferences during the period of (2002: 1993) aimed at providing a forum for scientific debates and informal dialogues to exchange views and promote cooperation for the development of the Nile Basin.

In the context of collective tracks, and contrary to all the pessimistic expectations about the future of water conflicts in the Nile Basin, the

¹⁶ Ilyas Masih Patricia Trambauer,,A Review of droughts in African continent : A geospatial and long term

perspective ,"Hydrology and earth system science", April 2014, p3643.



Nile for peace Initiative

Council of Ministers of Water Affairs endorsed a program of action on the sharing and management of the Nile water on March, 1998 in Tanzania by (8) states, in the absence of participation by Eritrea and the Democratic Republic of Congo. This resulted in the launching of the Nile Basin Initiative (NBI) unanimously with (9) member states, while Eritrea held an observer status and expressed its desire to accede to the Initiative afterwards.

The NBI was launched to serve as a transitional phase and a prelude to a comprehensive cooperative framework agreement, in which several dialectical points and goals were agreed upon including the shared vision of sustainable socio-economic development through equitable and reasonable utilization in a manner that guarantees the development and optimal use of resources for all peoples of the Nile, promotes cooperation and common work and puts an end to poverty. Accordingly, such states prepared a

comprehensive Strategic Action Programme (SAP) and two Subsidiary Action Programmes.

However, after a decade of meetings, arguments escalated around the finalized version of the Cooperative Framework Agreement (CFA) and the establishment of the Nile Basin Commission, as there were different positions with regards to the content of articles (8, 14, and 34) on prior notification, water security and voting mechanism. As a result, (6) states signed the agreement, namely: Uganda, Tanzania, Ethiopia, Rwanda in 2010 as well as Burundi and Kenya in 2011, with objections from Egypt and Sudan and the implementation of such agreement was dependent on the ratification of (6) states only.

¹⁷

Looking at the Nile Basin and its dynamics, one may see a number of opportunities and potentials for water governance and may sense an optimism for cooperation. Such dynamics are as follows:

¹⁷ Hydrological science journal, challenge for water sharing in the Nile basin: changing geo- politics and changing climate, 4 July 2011, <https://bit.ly/2Ts8W7g>.



Fourth: Prospects for achieving shared water governance in the Nile Basin:

1. The economic integration mechanism

The economic integration mechanism of the Nile Basin countries is an effective pathways towards achieving water governance, as it requires the states to conduct several accurate studies on the current and future water needs and the economic and social development plans, in addition to requiring them to use such studies and plans in the preparation of complementary projects and investments that meet the aspirations of these countries for hydroelectric power, water security, agriculture and thereby more job opportunities as well as increasing incomes and improving social development indicators.

2. The conclusion of a comprehensive cooperative legal agreement

The experiences and models of common water governance indicate the need to review and assess the present agreements and try to come up with a comprehensive and binding legal agreement by converging the views and

interests as well as creating a shared vision of comprehensive and sustainable development consistent with the international water law conventions and their principles, particularly the principles of equitable and reasonable water utilization, not to cause any significant harm as well as the involvement of the two downstream countries and ensuring sustainable development for the upstream country.

3. Convergence and strategic partnership mechanism

The convergence mechanism requires minimizing problems, strengthening links and strategic partnerships, increasing the coordination on the common challenges, investing in the available opportunities, formulating complementary plans and strategies and agreeing on peaceful settlements.

4. The Regional institutional and organizational structure mechanism

Undoubtedly, the common water governance requires the establishment of a range of organizational and institutional structures that would ensure the effective implementation of



legal agreements, supervise the water governance process between the Basin countries and coordinate the necessary policies. Such institutions include the Conference of Heads of State and Government, the Council of Ministers, the General Secretariat and technical commissions as well as the financing funds and judicial institutions for settlement of disputes.

5. The preparation of a set of basic and necessary plans for water management

The Nile Basin countries should consider the water needs and utilization and the possibilities of maximizing the use of water as well as developing plans that meet such needs, primarily the hydropower development strategies given the fact that the possibilities of benefiting from the hydropower in the Basin are still low. The countries should also develop such environment, deliver the hydropower to all the Basin countries and increase investments in irrigated agriculture projects as an importance source in achieving and providing water security, in addition to supporting the infrastructure projects of navigational routes,

transport and communications between the Nile Basin countries given their role in supporting the movement of cargo and personnel and strengthening links between states. This is in addition to the projects to increase water revenue and reduce evaporation and leakages' wastes, especially those resulting from the processes of linking and diverting tributaries, draining swamps and removing plant dams as well as the launching of projects for adapting and adjusting to climate changes in order to address climate changes and challenges, such as floods, drought and rainfall variability.