

SDG 6 Country Acceleration Case Studies 2022 Senegal



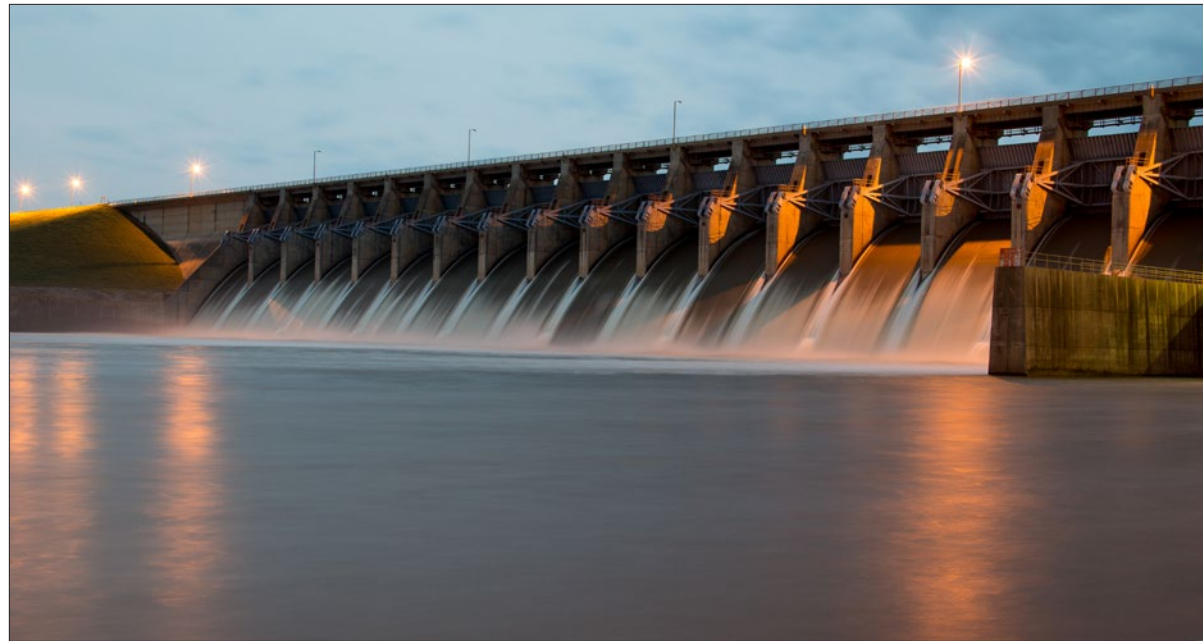
Development Of Case Study On Acceleration In Senegal

1. Background on Senegal

- Senegal is nearly 197 000 km² and has a population of approximately 17.2 million, about a quarter of which is concentrated in Dakar. Based on its 2018 real gross domestic product (GDP) per capita, estimated at US\$ 1 410, Senegal recently joined the ranks of the lower middle income countries after several decades of being classified as a low-income country.
- The Government of Senegal has set up a country partnership framework with the World Bank Group for the period 2020–2024. This framework is designed to support Senegal in attaining middle-income country status by 2035. It therefore aims to support the Government's ambition to promote sustainable, resilient and inclusive growth, as defined in the Emerging Senegal Plan and the second Priority Action Plan for 2019–2023.
- Also, in line with the programme for implementing the Sustainable Development

Goals, the overall development objective being targeted through Senegal's sectoral policy for the period 2016–2025 is to «contribute to implementing the Sustainable Development Goals with the aim of guaranteeing, by 2030, universal access to drinking water and sanitation, while ensuring integrated water resources management».

- In Senegal, surface water accounts for nearly 90% of renewable water resources (World Bank, 2021). The average annual volume of surface water is 36.97 billion m³. However, these resources are poorly distributed throughout the country. Indeed, almost all of Senegal's surface water is concentrated in just two management and planning units (eastern Senegal and the Senegal river valley) with an average annual water volume of 34.6 billion m³. Although groundwater only makes up 10% of renewable resources, it plays a strategic role, as it provides about 85% of drinking water and supports industrial, mining and tourism



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needs. Close to 88% of Senegal’s renewable water resources are transboundary.

- Senegal has a wide range of policy and legal instruments and several laws, decrees, orders and circulars to manage its water resources. (i) Nationally, the legal framework is mainly governed by the Water Code, which has been in place since 1981 and is currently being revised to take into account integrated water resources management (IWRM). There are other water-related codes and laws: the environmental code, the sanitation code, the forestry code, etc. However, these legal texts need to be applied with general consistency so that the water cycle is effectively managed. (ii) In terms of shared basins, there are a number of conventions linking the various riparian States and members of the Senegal River Development Organization (OMVS) and the Gambia River Basin Development Organization (OMVG). In addition to the 1972 convention establishing

the OMVS, the Organization has established conventions relating to: the status of the Senegal River (1972); the legal status of joint works (1978) and the methods of financing joint works (1982). These conventions were supplemented by the Senegal River Waters Charter adopted in 2002, which was designed to strengthen consideration of the environment, ecosystems and principles derived from IWRM and cooperation standards for shared basins. The OMVG has established four basic conventions, identical to those of the OMVS. These are: the convention establishing the OMVG in 1978; the convention of 30 June 1978 on the legal status of the Gambia River, which gives the river and its tributaries the status of an international watercourse and guarantees freedom of navigation and equality in all the ways that the river’s water is used; the convention of 29 January 1985 on the legal status of joint works; and the convention on financing joint works.

- These various conventions and arrangements at the transboundary basin level have mainly focused on surface water. However, transboundary groundwater management has been a weak point that has had a negative effect on scores for SDG 6.5.2. This case study by Senegal will aim to highlight a number of initiatives that promote transboundary water management cooperation as part of achieving SDG 6.5.2 (proportion of transboundary basin area with an operational arrangement for water cooperation in place by 2030) for which UNECE and UNESCO are the lead agencies. This case study shows how water cooperation could be a way to accelerate the implementation of the SDGs, starting from the past experience of the OMVS and OMVG, and showing how recent developments have reinvigorated transboundary cooperation initiatives since the SDG framework was adopted (acceding to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (“water convention”); the Senegal-Mauritania Aquifer Basin (SMAB) initiative; Senegal’s work to raise awareness of transboundary issues within United Nations bodies; and organizing the World Water Forum).
- Senegal’s commitment to and involvement in establishing cooperation on shared water resources is a major part of accelerating the implementation of SDG 6. The majority of Senegal’s renewable waters are shared. Implementing SDG 6 therefore depends heavily on the concerted and sustainable management of these waters, especially shared groundwater. Senegal has made significant progress on shared surface water management. However, shared groundwater was not well addressed. And so, this case study demonstrates the progress made in managing shared groundwater and how

this can speed up the implementation of target 6.5 of SDG 6. These various initiatives, and the political will and commitment of Senegal to water cooperation, will accelerate the implementation of SDG 6.5, but will also facilitate the implementation of other SDGs that are closely related to SDG 6.

2. Making acceleration a reality, and main lessons learned

Senegal’s mobilization, commitment and leadership in creating cooperation on shared water resources has put in place the foundations, frameworks and mechanisms that have positively accelerated transboundary water management outcomes, and enabled the implementation of SDG 6.

- **High-level political commitment to better manage transboundary water resources.** Senegal has been involved from the start in the management and collaborative governance of the surface water resources that it shares with neighbouring States. That is why it is a founder member of two basin organizations: the OMVS and the OMVG. The two basins cover 41.8% of the country overall. The organizations have established a legal, regulatory and institutional armoury: (i) the convention on the legal status of joint works, which recognizes the States’ shared and indivisible ownership of the infrastructure that they have built together; (ii) the convention on the financing of joint works sets out the ways in which Member States share the costs of delivering joint works as well as the benefits that flow from their investments; (iii) the Senegal River Waters Charter, which establishes the general principles and approaches to allocating water resources among sectors, considering and approving projects that affect the availability and quality of water from the river, and

preserving the environment of the basin's ecosystem, as well as the way it functions and provides services; (iv) the Permanent Water Commission, a consultative body of the OMVS Council of Ministers. The Commission is made up of Member State representatives that are responsible for navigating the competing demands made on the waters. The various conventions have enabled joint projects to be delivered, such as the Diama, Manantali and Félou dams. They have allowed: irrigated farming to be established with the potential to irrigate 240 000 hectares in the Senegalese section of the Senegal river basin; hydroelectricity to be generated at an average of 335 GWh per year, 25% of which is allocated to Senegal; drinking water to be supplied to Senegal's capital, Dakar, and several large cities due to the construction of water treatment facilities (35% of Senegal's total production of drinking water) on Lake Guiers, which is mainly fed by the Senegal River following its regulation through investments from the OMVS.

- To strengthen public participation, the OMVS created a Basin Committee in 2009 as well as consultation and coordination platforms in each of the riparian States. In addition to the Basin Committee, national coordination committees, as well as local departmental ones, have been established in each State. Local stakeholders have also become more involved through the establishment of user associations in the Senegal River valley. For the Gambia River Basin, the OMVG has the following instruments and tools for managing water resources: (i) the Permanent Water Commission; (ii) the draft water charter has been developed but is yet to be endorsed by Member States; (iii) national oversight committees, which ensure that national implementation activities are monitored; (iv) local coordination and oversight

committees that coordinate and monitor local implementation work.

However, we should note that this joint work has not been effectively taking account of shared groundwater resources, which could affect the implementation of SDG 6, especially scores for SDG indicator 6.5.2.

- **Senegal: a catalyst for a cooperative approach to the holistic and comprehensive management of the SMAB.** The SMAB covers an area of 331 450 km² and encompasses much of the territory of the countries that share it: 100% of The Gambia, 37% of Guinea Bissau, 14% of Mauritania, and 84% of Senegal. The SMAB countries depend on groundwater resources to meet more than 80% of the domestic needs of their populations.
- Groundwater can be an important part of boosting climate resilience and can be a catalyst for economic opportunities: using irrigation to intensify agriculture can help create jobs and improve incomes up and down the value chain.
- Based on the experience of shared surface water management, and given the importance of cooperating on groundwater management so as to implement SDG 6, Senegal, The Gambia, Guinea Bissau and Mauritania have been engaged since February 2019 in a joint dialogue, which has also included the OMVG and OMVS, to set up a transboundary cooperation programme on the SMAB.
- The dialogue started with a round table on 6 and 7 February 2019. It allowed for an initial stocktake of the respective levels of knowledge about the SMAB, the challenges, and the potential benefits that could be derived from transboundary



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cooperation. As a result, a roadmap to develop a vision and a joint programme that could make the collaboration a reality was discussed and approved in October 2019.

- Since May 2020, a Regional Working Group has been operating under a ministerial mandate. Its objective is to foster transboundary cooperation and provide advice to the States and basin organizations that could help establish a long term mechanism for the concerted management of the SMAB, particularly by drafting an action plan and a joint project designed to initiate transboundary cooperation. As a result, the Group created a project that the States endorsed in a joint ministerial declaration, which the four ministers signed in September 2021 so as to create momentum towards

delivering the cooperation project. The declaration strengthened the Working Group's mandate and led to the effective involvement of the OMVS and OMVG, the two transboundary basin organizations. This was how a platform for consultation and action both emerged and took shape.

- The cooperation will help to strengthen the population's security of access to drinking water, which will positively affect people's health and the quality of their nutrition. This framework for building the capacity of regional and national organizations will also have a positive impact on the management and governance of water resources. The private sector, which will be closely involved in implementing the project (from large-scale users in the mining sector to small-scale



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farmers) will be able to benefit from a predictable and favourable framework within which to develop their economic activities.

- > Globally, arrangements for sharing groundwater occur very rarely, if at all. Senegal's commitment will enable scores for SDG indicator 6.5.2 to improve, allow the country's leadership in water diplomacy to flourish, and facilitate development within the economic sectors that use this resource (agriculture, services, mining and manufacturing) through better access to and governance of water.
- > **Senegal is taking a comprehensive approach to monitoring SDG 6.** Senegal committed to monitoring the SDG from a very early stage and has involved various technical departments from relevant ministries, civil society and universities. The

monitoring is assured and coordinated by the Senegal Directorate of Water Resources Management and Planning. In that regard, several initiatives have been developed and delivered: a project for the comprehensive monitoring of SDG water and sanitation targets (GEMI); WALIS, funded by USAID, is designed to consolidate and strengthen the water sector's monitoring and evaluation system so as to improve decision support mechanisms, etc. These various initiatives have allowed different sectors to work together, share water related data and set up a collaborative framework to enrich the data for the indicators. The initiatives have also helped to identify the main barriers to implementing SDG 6. Monitoring indicator 6.5.2 has enabled us to understand the need to develop a collaborative approach to the SMAB. This has also facilitated

the justification for engaging in dialogue about the Senegal-Mauritania Aquifer.

- > **An inclusive dialogue and a flexible approach to shared waters.** In addition to the basin organizations (OMVS and OMVG) and the SMAB cooperation initiative, lots of collaborative coordination platforms have been set up within the basins to enhance collaboration, consolidate peace with regard to the waters, and identify the constraints that occur from time to time, so as to find solutions that work for all communities. At the national level, collaborative frameworks for the basins are also in the process of being rolled out, including by developing planning tools such as the Water Development and Management Master Plans. This governance model is based on water-related dialogue, and makes a strong contribution to delivering SDG 6. It enables the focus to remain on the availability of water through conflict prevention, to enhance access to water and to improve water quality by developing financial partnerships.
- > **Sustained and constant efforts in water diplomacy.** The various water-related cooperation initiatives that Senegal has launched are perfectly aligned with its agendas and initiatives at all levels: (i) the declaration of the last World Water Forum, which took place in March 2022 in Dakar, Senegal; it particularly highlighted the need to set up mutually beneficial partnerships for managing transboundary basins, such as aquifer basins, including by promoting the exchange of information, experiences and good practices as part of a culture of water diplomacy; (ii) in 2018, Senegal acceded to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (the "water convention"), which was adopted in Helsinki, Finland,

in 1992 and entered into force in 1996. In that regard, an implementation plan for the convention was drafted and approved in 2021 by Senegal's Ministry of Water and Sanitation in cooperation with other stakeholders; and (iii) Senegal's April 2016 initiative, during its term of office on the United Nations Security Council, to table the first ever agenda item on water, peace and security, which was designed to ease water-related tensions and facilitate universal access to this resource.

3. Putting it into perspective/ looking ahead: Barriers and opportunities in implementing SDG 6

Implementing the SDGs means removing some barriers and making the most of opportunities.

BARRIERS

- > *Institutional instability of the water and sanitation sector.* Over the last 20 years, the water sector has been assigned to different ministries (agriculture, energy, infrastructure, etc.). That was until recently, when a single ministry was dedicated to water. It should also be noted that several other ministries are closely involved with water issues. This demonstrates the holistic dimension of water, and is articulated in SDG 6 via different purposes defined by sector: (i) agriculture, with agricultural purposes in their broad sense, (ii) manufacturing and mining, (iii) services.
- > The High Council on Water and the Technical Water Committee are bodies for consultation and direction setting. Although they were established in 1998, they are still not functioning and operational, and are not fully playing their strategic and consultation roles

on major water-related issues at the national level. This could be explained by institutional instability across various ministries, which prevent leading departmental officials from being usefully involved.

- For the Senegal River Basin, analysis of this framework shows that the institutional system in place is very methodical and relevant. However, the functioning of these bodies remains problematic. In contrast to meetings of the Permanent Water Commission, which are held regularly with all stakeholders attending, the other current frameworks have very low functionality, with almost no meetings ever taking place. The OMVG has the same challenges.
- *Lack of financial resources.* Such resources would allow for better and continuous data collection in order to populate databases and so allow SDG 6 indicators to be calculated very easily.
- Some territorial consultation frameworks have not yet been set up.
- A lack of implementing regulations, and ministerial and joint ministerial orders: these would allow the Water Code to be implemented effectively.
- A lack of consistency between the different legal codes dealing with water issues.
- Documented delays in the process of updating the Water Code, which has been under way since 2011 and is currently undergoing validation at the National Assembly.

OPPORTUNITIES

- Senegal is a member of two transboundary basin organizations whose conventions have already been signed. This sort

of experience could help to establish conventions for the SMAB.

- A monitoring and evaluation system for Senegal's IWRM Action Plan has already been designed and could be used to monitor indicators 6.5.1 and 6.5.2.
- An investment programme for the water and sanitation sector is being developed, with a work strand devoted to IWRM. This investment plan could help boost the financing component of IWRM, which is the weakest element in the process of measuring indicator 6.5.1.
- Senegal has already established a mechanism for monitoring SDG 6.
- *Joint ministerial partnership declaration between Senegal, Mauritania, Guinea Bissau and the Gambia on managing the SMAB.* This is a joint declaration to establish a legal and institutional framework for cooperation on the SMAB.
- Global acceleration framework for SDG 6 that could support the national framework.
- The existence and commitment of international organizations that can contribute to building national capacity so as to improve the management of shared groundwater. For example, the UNESCO Intergovernmental Hydrological Programme is a source of recognized expertise, demonstrated by its studies and evaluations of transboundary aquifers. The Programme's ninth phase (2022–2029) plans to support Member States to improve the skillsets of their professionals from the water sector.
- The Convention on the Protection and Use of Transboundary Watercourses and International Lakes provides a practical

opportunity for support, including through the convention's framework.

Through the different initiatives, policies, arrangements and frameworks that have been established and/or delivered, Senegal is resolutely committed to accelerating the implementation of SDG 6 in particular, and the SDGs more generally. In this way, cooperation on surface and groundwater resources will promote the development of economic sectors (agriculture, services, mining and manufacturing) through better access to water. It will play a crucial role in food security and the fight against hunger (SDGs 1 and 2), access to sustainable hydroelectricity and green energy (SDG 7), and establishing an inclusive and resilient infrastructure (SDG 9). This should help to boost the economic growth of Member States that share their water resources (SDG 8).



**United
Nations**



UN WATER