

Kinshasa and Brazzaville (DRC & Congo)

About the IWA Action Agenda for Basin-Connected Cities

The IWA [Action Agenda for Basin-Connected Cities](http://www.iwa-network.org/press/the-action-agenda-for-basin-connected-cities/) builds on the [Principles for Water Wise Cities](#), with a focus on how cities can be active water stewards in their wider water basins. This includes the Drivers for Action such as extreme events, declining water quality, and water availability; followed by the Pathways to Action through assessment, planning and implementation; and the Foundations for Action from developing a vision to building capacity to improving governance. To learn more visit - <http://www.iwa-network.org/press/the-action-agenda-for-basin-connected-cities/>

About the Basin Stories

The [basin stories](#) are documenting some of the best practices and approaches that demonstrate how stakeholders especially those in urban areas (e.g. city government, water and wastewater utilities, industries) are taking part or contributing to sustainable management of water resources. Greater basin-level collaboration from catchment to consumer is essential for sustainable water management in the face of growing demand on water resources and global change. The stories aim to inspire urban stakeholders to be aware and respond to what is happening in their watershed.

DRC AND CONGO : Zero discharge into the river

Contributed by: Tristan Milot, Project manager, Syndicat Interdépartemental pour l'assainissement de l'agglomération Parisienne (SIAAP)

Summary

The cities of Kinshasa and Brazzaville are the respective capitals of the Democratic Republic of Congo and the Republic of Congo Brazzaville and have 18 million and 2 million inhabitants. These two cities are crossed by the Congo River, which is heavily polluted due to inadequate infrastructure to treat the effluent and waste. Consequently, wastewater is discharged directly into the river, which contributes to poor water quality. Only 5.5% and 11% of the populations of Kinshasa and Brazzaville respectively, are covered by a sewer system, which collects 40% and 45% of the daily water use of the cities. The remainder is discharged into wells or onto the street. This situation significantly contributes to the pollution of the river but has also become a source of disease due to untreated water. In order to counter this problem, a plan for the development of a sludge treatment plant has been set up by the city of Brazzaville, the province of Kinshasa, UNESCO and the SIAAP (Syndicat Interdépartemental pour l'assainissement de l'agglomération parisienne). This initiative is involving the local population, as well as developing various water treatment infrastructure, ensuring continuity in access to water and a reduction in the pollutants discharged into the water.



Construction of the wastewater treatment plant in the city of Kinshasa. Source: digitalcongo.net

Geographic information

Country: Republic of Congo and Democratic Republic of Congo (DRC)

City: Kinshasa & Brazzaville.

Population: 18 and 2 million inhabitants

Basin area: Congo basin

Problem: A river polluted by untreated wastewater and solid waste leading to unsanitary conditions and spread of infectious waterborne diseases.

Solution:

- Regulations to prevent the discharge of wastewater directly into the river without prior treatment
- Setting up wastewater treatment infrastructure
- Collection of solid waste
- Education of the population on water and wastewater management

Problem

The Congo River has been heavily polluted due to the discharge of untreated wastewater which is a result of inadequate infrastructure to transport and treat wastewater from the cities of Kinshasa and Brazzaville. Additionally, rapid population growth of these cities without adequate water and wastewater services has also significantly contributed to the degradation of the river. Excessive pollution, coupled with the lack of infrastructure, endangers the downstream populations of the river as well as the urban populations of both capitals.

The pollution of the river basin is largely caused by the disposal of large amounts of solid waste and wastewater directly into the river without treatment. The wastewater disposal into the river accounts for about 40% in the city of Kinshasa and 45% for Brazzaville of the total wastewater discharge, with the remainder being disposed in wells, groundwater or directly onto the street.

The untreated wastewater and solid waste pollution has led to numerous problems such as ecological damage of the river and has also become a breeding ground for various infectious diseases such as cholera that affect the most vulnerable people, particularly children. About 88% of the diseases in the area are linked to untreated water.

What are the Drivers for Action?

For more information on the Drivers for Action visit the [Action Agenda for Basin-Connected Cities](#)

Extreme Events

- ☐ Public health hazards
- ☐ Damage to infrastructure
- ☐ Economic activities and supply chain disruption

Declining water quality

- ☐ High operating costs
- ☐ Loss of credibility and trust
- ☒ Environmental, cultural and health impacts

Water availability

- ☐ Water supply disruption
- ☐ Constraints to growth
- ☒ Declining quality of life

Solution

To curb the ongoing ecological and sanitary disaster, marked in particular by frequent cholera outbreaks, SIAAP has proposed to local elected officials the implementation of a common sanitation solution to replace the current weak and defective sewer and gutter network. This project is to be carried out in several phases between 2019 and 2022:

Phase 1: A diagnostic and feasibility study for the construction of two sewage sludge treatment units on either side of the Congo River.

Phase 2: According to the obligations defined in phase 1, to develop the necessary infrastructure for treatment of faecal sludge in the province of Kinshasa and the city of Brazzaville.

Phase 3: Create the conditions for the operation of the treatment plants, train the necessary personnel for the operation as well as support development of local regulations for the city to reach zero uncontrolled discharge of faecal sludge.

Phase 3 a: Work on the implementation of sanitation billing of users.

Phase 4: Create and implement defined septage and wastewater treatment sites for existing sewers.

In addition to the development of these infrastructure, support to the local authorities is planned.

One of the results of this river renovation policy has been the reduction of various pollutants in the Congo basin and a general improvement in water quality. Finally, there has also been a decrease in the quantity of solid waste in the river and better access to the river by the public.

This project is enabling the development of a circular economy by reinjecting the money from the waste treatment into the economy. In addition, this redevelopment project contributes towards the Sustainable Development Goals (SDGs), in particular the sixth goal on access to water and sanitation. It is also worth mentioning the political dimension of this project, which has enabled collaboration between the DRC and Republic of Congo, which have not been closely aligned on the issue of wastewater management in the past. Moreover, the sanitation of the basin is an important step in the relationship between these two countries since the river represents the largest part of the border between DRC and the Republic of Congo.

This project is part of the Megacities Alliance for Water and Climate (MAWaC) Initiated at the United Nations Framework Convention on Climate Change (UNFCCC) 21st Conference of Parties (COP) in December 2015. It is part of the Global Alliance for Water and Climate (GAFWAC) and aims to develop exchanges between cities with more than 10 million inhabitants, to better prevent the impacts of population growth and climate change on their functioning.

To prepare for these hazards, MAWaC offers its members the facility to share experiences and best practices, support for design of technical tools and urban water governance models, sharing of strategies and scientific studies, and partnerships between operators to improve the capacity of each megacity to adapt to the impacts of climate change.

Pathways for Action

For more information on the Pathways for Action visit the [Action Agenda for Basin-Connected Cities](#)

Assessment	Planning	Implementation
<input checked="" type="checkbox"/> Investment in data & information systems	<input type="checkbox"/> Risk-based approach to planning	<input type="checkbox"/> Integration of natural infrastructure
<input type="checkbox"/> Linking traditional water management with science	<input type="checkbox"/> Water allocation mechanisms	<input checked="" type="checkbox"/> Economic and financing mechanisms
<input type="checkbox"/> Invest in values to motivate water decision-making	<input type="checkbox"/> Stakeholder participation in planning and management	<input type="checkbox"/> Building partnerships from catchment to tap
	<input checked="" type="checkbox"/> Aligning urban development with basin management	<input type="checkbox"/> Digital Technologies

Lessons learned

Given the novelty of the project (beginning at 2021), it is premature at this time to draw founding lessons. On the other hand, stakeholders regularly report on the project's progress, and have so far indicated positive results.

Resources

https://www.siaap.fr/fileadmin/user_upload/Siaap/4_International/Cooperations/Afrique/2022_SIAAP_RI_Afrique_RDC_et_Congo_Zero_rejet_fleuve_Congo.pdf

About SIAAP

SIAAP- the greater Paris Sanitation Authority- was established in 1970. SIAAP is the public service utility that treats wastewater every day from 9 million inhabitants of Ile de France, including also storm water and industrial wastewater. SIAAP, with more than 1,700 personnel, treats 7d / 7, 24H / 24, almost 2.5 million m³ of water, transported by 440 km of main sewers and treated by its six waste water treatment plants. This has improved water quality in the Seine and the Marne Rivers.