

CASE STUDY



Children's Empire (Popenguine) 2022

Distributor **Tx-H2O**

Project Installation of a System O)) in a shelter for street children, the Children's Empire.

Treatment capacity **8 EH**

Type of discharge **Collection and reuse of treated water**

Surface area **4,8m²**

Site specifications Wastewater from the Children's Empire shelter is collected and piped to a septic tank before being treated by the System O)) installed in the front yard.



Water quality before and after treatment System O))



CONTEXT

Located 70 km south of Dakar, the city of Popenguine is home to the Empire Children's Refuge. This association has been working tirelessly since 2003 to care for, protect and socially reintegrate children living in vulnerable situations on the streets of Dakar. It also hosts numerous training activities, seminars and green classes, the site is faced with increasing water needs, mainly for housekeeping and green spaces. With no sewage system or sludge treatment plant nearby, wastewater is periodically collected by dump trucks and discharged into the environment. A System O)) was therefore set up to treat some of the shelter's wastewater and reuse it.



During and after the installation of the System O))



TREATMENT CHAIN

The treatment chain is composed of a primary treatment stage in a septic tank followed by an advanced secondary treatment stage with the System O)). The treated water is then collected at the outlet of the System O)) by means of a collection bottom.



Green class



ENVIRONMENTAL AND ECONOMIC ADVANTAGES



The installation has allowed the shelter to passively treat a portion of their wastewater and obtain treated water that can be reused for the maintenance of green spaces. Green classes are organized on site to educate and sensitize young people about green technologies and environmental protection.

Purification performance well below the country's standards:

- Less than 40mg/L of BOD5 (5-day biochemical oxygen demand)
- Less than 50mg/L of suspended solids (SS)
- Less than 2000 CFU/100ml of fecal coliforms