

Country story: Sierra Leone and capacity development

Background

Sierra Leone reported on SDG indicator 6.3.2 for the first time in 2020.

In 2017, during the baseline data drive for this indicator, the national focal point **highlighted data gaps**, and identified the need to **build capacity** in the country to ensure water quality data could be reliably collected.

As a first step, the national focal point, Mr Mohamed Sahr E Juanah, Director of Hydrological Services within the National Water Resources Management Agency (NWRMA) undertook a **Postgraduate Diploma in Freshwater Quality Monitoring and Assessment** with the United Nations Development Programme Global Environment Monitoring System (UNEP GEMS)/Water Capacity Development Centre at University College Cork, and went on to complete his Master's thesis.

Using the **knowledge** he gained during his studies, he:

- designed a monitoring programme
- secured suitable field equipment
- implemented the programme and collected data
- analysed the data and classified the water quality of the Rokel River basin for the first time.

Outcomes

The new monitoring programme included the establishment of:

- defined monitoring stations and a monitoring regime
- prescribed analytical procedures
- quality control and quality assurance protocols
- standard operating procedures.

The first data set collected for Sierra Leone using these criteria will be used as a baseline for future monitoring campaigns.

Staff of the NWRMA were trained in water quality monitoring and assessment.

It was identified that the Rokel basin has a naturally high phosphate content and very low electrical conductivity values.

An SDG Indicator score of **41.7** was reported. Of the 12 water bodies classified, seven failed to meet the 80 per cent compliance criteria and measures to tackle the causes of pollution are needed.

Future

- **Expand** monitoring to neighbouring basins and eventually to national level.
- **Develop** laboratory-based analytical capacity.
- Ensure additional staff are **trained** through continuous professional development courses.
- Develop a **data management** framework that allows the data to be stored, analysed, and shared more easily.
- Further refine the **target values** used to classify water quality, to improve the sensitivity of the assessment.
- Implement **management actions** to identify and **mitigate pollution** and **improve water quality** over time.



Rokel River at Rogbere bridge, Sierra Leone.
Photo credit: NWRMA.



**SUSTAINABLE
DEVELOPMENT**

GOALS