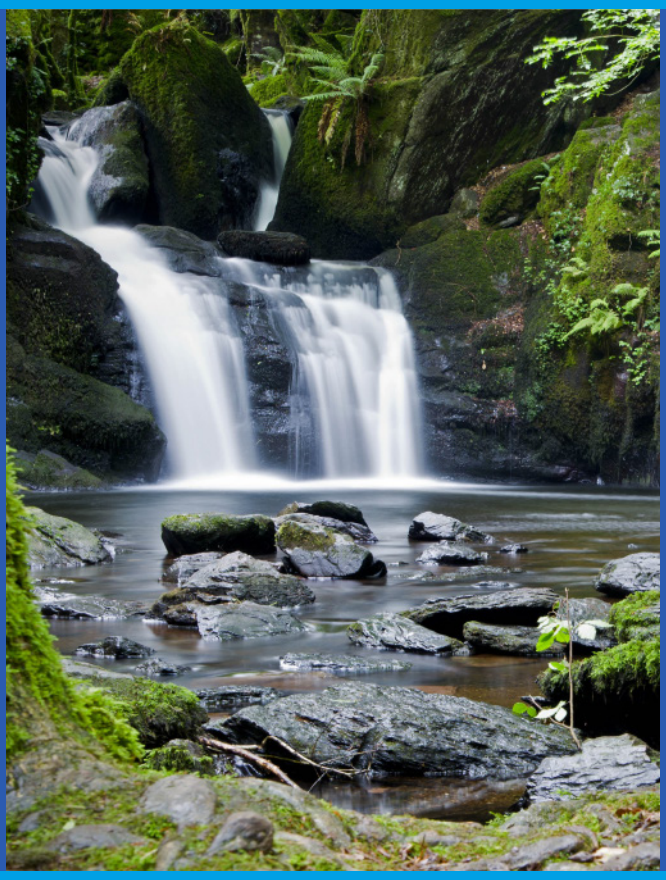
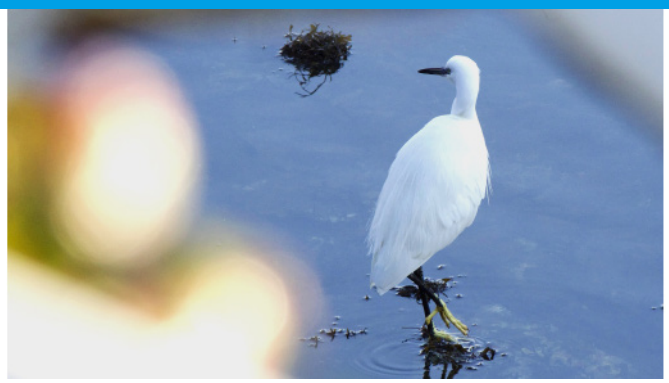


UN Environment GEMS/Water Capacity Development Centre **Strategic Plan 2018 - 2024**

Strengthening the world's capacity to monitor freshwater



UN environment

GEMS Water

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

UN Environment GEMS/Water Capacity Development Centre

Strategic Plan 2018 – 2024

Mission

To develop global capacity to monitor the quality of freshwater in support of environmental assessments at national, regional and global scales.

The UN Environment GEMS/Water Capacity Development Centre promotes and supports an essential, but often overlooked, component of sustainable development, i.e. the management of freshwater quality based on sound water quality monitoring data. Good water quality in rivers, lakes and groundwaters, ensures water is suitable for drinking and irrigation, and supports balanced and functioning aquatic ecosystems and viable fisheries. Appropriate management is not possible without a related monitoring programme that checks compliance with water quality targets, measures impacts or follows trends in water quality.

Many low income countries have neither the capacity to monitor freshwater quality, nor the capacity to assess the data collected. The Centre is addressing this capacity deficit, and the strategy outlined here for the period until 2024 demonstrates how the Centre will extend its global reach and influence in order to develop further global capacity in freshwater quality monitoring and assessment.

Context

The UN Environment's global programme for freshwater quality monitoring (GEMS/Water – the Global Environment Monitoring System for Water) was established in the 1970s to encourage the generation and sharing of water quality data that can be used for regional, global and targeted water quality assessment reports. After many years of financial and technical support from the Government of Canada, the programme was restructured in 2014 with support from the Governments of Ireland and Germany. Currently, the GEMS/Water programme comprises three Centres: the Global Programme Co-ordination Unit at UN Environment headquarters in Nairobi, the GEMS/Water Capacity Development Centre in University College Cork (UCC), Ireland and the GEMS/Water Data Centre in the Federal Institute of Hydrology, Koblenz, Germany. Assistance in different world regions is envisioned through a network of Regional Hubs. At present, one Regional Hub exists at the National Water Agency (ANA), Brasilia, Brazil.

The GEMS/Water Capacity Development Centre (CDC) operates under core funding from a Project Co-operation Agreement for five years (September 2015 to August 2020) between UN Environment and University College Cork. The Centre currently has five core staff, including the Director, and benefits from short and medium-term contract staff supported by additional funding sources and from several Internships each year. This strategy covers the period until 2024 in order to align with the timeframe of the Strategic Plan for the overall GEMS/Water programme.

Objectives and progress

To date the work of the Centre has been focussed on the objectives of the core funding agreement for the period 2015-2020, starting with an initial scoping exercise to determine the demand and topics for capacity development in the form of training and assistance. Considerable progress has been made in delivering the project objectives, as indicated in the table below. In 2016, partly supported by additional short-term funding, GEMS/Water took on the role of developing and supporting the Sustainable Development Goal for water indicator 6.3.2, which measures ambient water quality at national scale. Expansion of the GEMS/Water network, and engagement of countries worldwide with water quality monitoring for SDG indicator 6.3.2 are anticipated to continue for at least the next ten years. This will require considerable outreach and networking activity.

Core funding objectives	*Progress*
Update existing training course materials and/or develop new training materials, as identified by the review of capacity development needs, for delivery face to face or in distance learning format (on-line)	Development of a Postgraduate Diploma in Freshwater Quality Monitoring and Assessment at UCC and enrolment of 20 students from 14 different countries in Africa and the Caribbean.
Organise and participate in national and regional training workshops on water quality monitoring, assessment and quality assurance	Five workshops in Africa, Latin America and Asia-Pacific that have been attended by delegates from more than 50 countries
Host and support water scientists, technicians and managers in tailor-made water quality training, assessment and reporting as needed	Training, country support and assistance in approximately 40 countries
Additional objectives (since 2014)	*Progress*
Support the development and implementation of Sustainable Development Goal indicator 6.3.2	Developing a methodology for SDG indicator 6.3.2. Drafting of a section of the SDG 6 Synthesis report and of the first full SDG 6.3.2 Indicator Report
Contribute to the growth and activity of the GEMS/Water network	Participation in ten major international water events worldwide

Current status of the Centre: Strengths and weaknesses

The success of the Centre in such a short time is evident from the growing demand for its products and services, particularly expert advice and training in all aspects of freshwater quality monitoring. The global connection through UN Environment provides access to, and links with, countries and agencies in many world regions that would otherwise be very time consuming to establish. UN Environment is held in high regard as being a source of credible information and assistance, particularly in developing countries. When combined with the academic endorsement through University College Cork, one of the top 2% of universities globally, it provides the Centre with a unique position to fulfil a new global demand arising from increased awareness of the role of water quality in water resources management. The activities of the Centre also contribute to the University's overall strategy[1] and fulfil several roles in its sustainability strategy[2].

Meeting the growing demand for the services and products of the CDC in the long term, especially the Postgraduate Diploma and support for the SDG indicator 6.3.2 for water quality until 2030, is threatened by the short-term nature of the financial support. Currently

[1] https://www.ucc.ie/en/strategicplanning/2017/

[2] https://www.ucc.ie/en/media/support/buildingsandestates/environment/UCCSustainabilityStrategy_interactive.pdf

the financial resources are all coming from one source, namely UN Environment, which in turn is relying heavily on limited financial backing from the Government of Ireland. Because of the amount of effort and resources required to establish monitoring and reporting systems for water quality at national scale, the outcomes of the core activities of the Centre are not likely to be realised within the five-year initial funding term, but are anticipated to be achieved in ten years in the future. Continuity of funding, and the associated staffing, are therefore crucial to realising the anticipated outcomes of the work of the Centre. The current level of financial support does not enable all requests for assistance to be met adequately and all potential activities to be carried out. Many potential opportunities are being lost as a result.

Building for the future 2018-2024

The activities of the Centre in the last two years have highlighted several areas in which there is a demand for its services and expertise. **In order to meet these demands, the main objectives of the Centre for the next five-year period to 2024 will be:**

1. Increase the current level of capacity development activities in Africa and globally in order to meet identified needs and demands by:
   - Increasing student intake on the Postgraduate Diploma from 20 to 30 each cycle and including more students from all world regions
   - Providing at least six, stand alone, short training courses on-line
   - Securing the continuity of the PG Diploma programme by seeking University approval for an MSc extension to the Diploma programme and exploring a joint MSc programme with partners, such as IHE-Delft.
   - Increasing the number of technical training courses delivered in different world regions from two per year to a minimum of four per year.
2. Provide the necessary technical support for countries to report on SDG indicator 6.3.2. The relatively low level of full reporting of SDG indicator 6.3.2, together with feedback obtained from workshops and questionnaires, has highlighted that many countries, particularly low income countries, need considerable support in the form of specific advice and training in establishing the required monitoring programmes and data handling facilities. This work has to date been supported through the UN Water GEMI project but the level of support has not been adequate to provide the services that are needed. In future and wherever possible, support for SDG indicator 6.3.2 will be combined, or run in parallel with, other GEMS/Water capacity development activities. Additional sources of funding for this activity will be sought.
3. Provide regular and timely information to the GEMS/Water country network on developments in water quality monitoring in relation to newly emerging and problem pollutants.
   In its position as a constituent Centre of the Environmental Research Institute, the CDC has opportunities to collaborate with international experts in a wide range of water-related research topics, including diffuse and point source pollution, sensor development and real-time monitoring, water and wastewater treatment, groundwater contamination, water quality risks to human health, water law, and climate impacts. The expertise of these scientists will be engaged to develop research projects on newly emerging issues

on water quality and monitoring techniques, and to produce a series of topical water quality assessment reports and horizon scanning activities that will be published under the GEMS/Water umbrella. In addition, encouragement and support will be offered to GEMS/Water participant countries that wish to develop and produce their own national water quality assessments.

In order to achieve the objectives of the Centre beyond the end of the project agreement with UN Environment in 2020, and in order to meet the increased demands for the services of GEMS/Water, the Centre will require:

- Guaranteed core funding from August 2020 for a minimum of a further 4 years to enable continuity of expertise in order to meet the expectations of the GEMS/Water programme strategic plan.
- Increased staff and travel resources that allow greater flexibility to respond to new challenges and demands.
- Additional infrastructure, such as office space and information technology to allow growth and the opportunity to offer new products.

A strategy to achieve success

The key impediment to the Centre being able to achieve demands for its services in the first phase, and its new objectives into the future, is insufficient resources. In order to grow the Centre and to widen its potential financial base, it is necessary to consider:

- Approaching new potential donors for GEMS/Water, such as new Aid Agencies, philanthropic organisations, commercial donors and trust funds.
- Enrolling more full fee-paying students and participants on the Postgraduate Diploma and other training courses.
- Encouraging more scientists to collaborate with the Centre.
- Generating income by offering selected services on a fee-paying basis.

During 2018, the focus will be on securing continuation of core funding from the Government of Ireland and on seeking new donors. Contacts are being actively established with potential research partners by exploiting opportunities to participate in regional and global networks and international research consortia. Development of an international research network will facilitate a broader range of potential activities that will enable research funding to be sought on relevant topics on water quality monitoring and assessment. It will also enable the Centre to establish a reputation for research and development of new methodologies for water quality monitoring.

In order to generate the revenue that will secure resources for the next student intake to the Postgraduate Diploma, a publicity campaign will commence late in the 2018 aimed at encouraging full fee-paying students onto the Diploma in 2019. In parallel, an MSc add-on option for the Diploma will be developed, and approval will be sought from UCC for implementation in 2019.

Further information and contacts

Further information about the activities of the Centre can be obtained from:

https://www.ucc.ie/en/gemscdc/

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