

Ensure availability and sustainable management of water and sanitation for all

TEACHING AND STUDENTS

Global Water and Sanitation Technologies

The Global Water and Sanitation Technologies module, available to Engineering students, covers the applications of hydraulic engineering to agriculture, process engineering, global water shortages and possible responses.



Water and Environmental Management

The Water and Environmental Management module is available to students studying Humanitarian Engineering courses. The course contains content on the unique chemistry of water, its ecosystems, sanitation, pollution and contamination, management and cultural impact.

Living with Water

Students on the Global Sustainable Development course can take the Living with Water module, which covers issues such as sustainable management of water resources and its impact on social, environmental and economic sustainability. Students also examine the history, geo-politics, culture and governance frameworks that relate to water and sustainable development.



RESEARCH

India/London water quality

Currently 70% of India's water is contaminated. Whilst different in severity and scale the UK also suffers from poor water management and a lack of community responsibility in water stewardship, only 14% of rivers in England are considered to be at Good Ecological Status within the Water Framework Directive. Researchers in the School of Engineering hope to improve local water quality monitoring in India and London, by partnering with NGOs Thames21 and Earth5R to identify and co-develop citizen science methodologies to address both London and Mumbai's water quality challenges.

Funded by a UKRI Citizen Science Exploration Grant, the team will explore existing research into water quality and evaluate how citizen science methods can be complimentary applied to the context of both the UK and India. The work will build on the previous PATHWAYS project, and attempt to translate the scientific findings into useable solutions for communities at risk of water pollution.

Improving water, sanitation and hygiene in Bangladesh (GCRF)

Infections of the gut such as typhoid, cholera, and shigella are leading causes of childhood death in the developing world, largely as a result of poor quality water, sanitation and hygiene. These diseases cause diarrhoea, which can lead to significant fluid loss, dehydration and death.

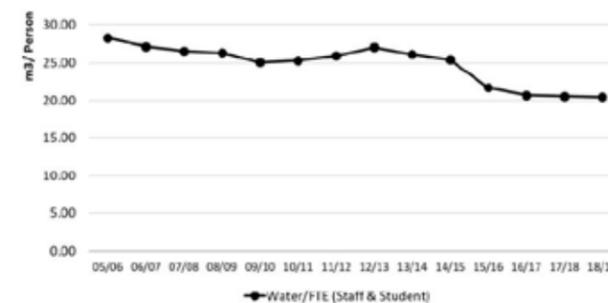
Researchers have been examining the accuracy of diarrhoea self-reporting with the International Centre for Diarrhoea Disease Research in Bangladesh. The research provided key evidence to support the monitoring and evaluation of water, sanitation and hygiene interventions, which is crucial in preventing diarrhoeal disease. Bangladesh's Ministry of Health, as well as international water, sanitation and hygiene organisations, will benefit from the research through better ability to measure prevalence of infection, and the effectiveness of water, sanitation and hygiene systems. It has led to further collaboration with local agencies including UNICEF and MSF, where the researchers are developing projects to evaluate water and sanitation using cheap and rapid stool testing methods.



OPERATIONS

Water consumption data

The University closely monitors water consumption to identify leaks and opportunities for improvement. Water consumption per full time equivalent (staff and students) has reduced year on year for the past seven years. Some of the projects to reduce consumption include behaviour campaigns, introducing shower and tap flow technology, and installing dual flush toilets.



Drinking water for all

The University has worked with City to Sea CIC to promote the Refill app across the campus, adding our own water refill sites to the app. Stickers have also been added to numerous sites on campus to inform everyone where they can access clean drinking water.



PUBLIC ENGAGEMENT

Cut the Flow

The Cut the Flow competition educates students in on campus accommodation about water and energy saving, rewarding the blocks with the greatest reduction in consumption. In its first year, enough money was saved to install water meters in Westwood accommodation, which previously did not have them. The project has resulted in an average reduction in daily water consumption from 193 litres per person to 150 litres per person.

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